THE ARCHITECT & BUILDING NEWS

6 JANUARY 1960 VOL. 217 NO. 1 ONE SHILLING WEEKLY

- **MODULAR BUILDING, HEMEL HEMPSTEAD**
- **CURRENT MARKET PRICES**

PUBLISHED IN LONDON SINCE 1854

COPPER RADIATORS

for direct hot water systems

These are made from tubular copper and can safely be used without expensive calorifires.

ECONARADS tailor-made to your dimensions and available in COLOUR

ECONA MODERN PRODUCTS LIMITED

Highlands Road · Shirley · Solihull · Warwicks · Telephone: SOLihull 3078

"INSULIGHT" double glazing units

add inspiration to insulation

These two windows in the home of Mr. and Mrs. Lonsdale, at Adlington, Cheshire, are glazed with "Insulight" Double Glazing Units in ¼" Polished Plate. The large unit measures approximately 114" x 66", and the smaller unit 54" x 54". Builder: H. Pendlebury, Titherington, Macclesfield.

Thermal insulation that is really effective ('U' value of ½" spaced double glazing—0.52 B.t.u./ft², hr. deg. F.) . . . insulating windows that keep rooms cosy and warm and save fuel while doing it . . . insulation in tall, wide and handsome "Insulight" Double Glazing Units to inspire the design of light, bright rooms.

For further details write to the manufacturers: Pilkington Brothers Limited, St. Helens, Lancashire. (Tel: St. Helens 4001) or Selwyn House, Cleveland Row, St. James's, S.W.1. (Tel: WHItehall 5672-6).

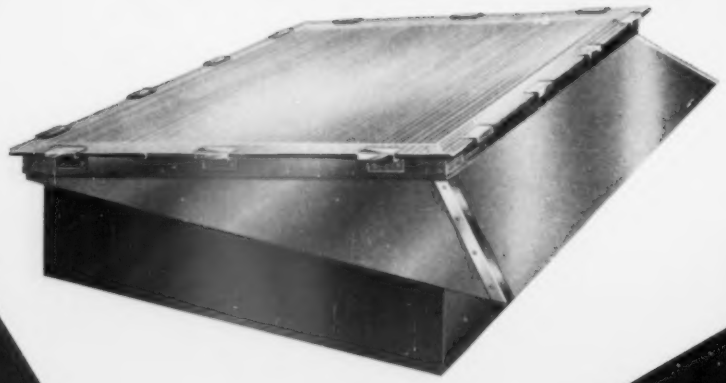
Pilkington Brothers Limited

ST. HELENS · LANCASHIRE

Supplies are available through the usual trade channels. "INSULIGHT" is a registered trade mark of Pilkington Brothers Limited.

A

Roof Lights with a future . . .



complete weather protection and permanent ventilation

competitive prices—special discount for quantities

immediate delivery of large or small quantities

DATA SHEETS
AND PRICE LIST
BY RETURN OF POST

QUICKTHO

ENGINEERING LIMITED

5 GRAFTON STREET, LONDON W.1

ASHBURTON CHEMICALS

choose Ceramic Tiles

First impressions last — when they are created by Ceramic Glazed Tiles — a stimulating surface material used for the North Entrance to the Staff Canteen at the Ashburton Chemical Works Ltd., Trafford Park, Manchester. Ceramic Tiles are the perfect surface material — immune from atmospheric erosion, immaculate, and permanently bright!

Architects: Scherrer & Hicks, London.
Main Contractors: J. Gerrard & Sons Ltd., Swinton.

Visit the Association's display of ceramic tiles, at the Building Centre, Store St., Tottenham Court Rd., W.C.1.

British Ceramic TILES

Glazed & Floor Tile Manufacturers' Association · Federation House · Stoke-on-Trent

A fine roofing job?

you should see ours!

INDUSTRIAL ENGINEERING LTD

The roof specialists

As specialists for over forty years in the construction, reconstruction, maintenance and waterproofing of industrial roofs, we are able to offer the architect a complete service designed to relieve him of every worry.

* The complete roofing contract can be placed with us, eliminating the need for dealing with several sub-contractors.
* A number of highly specialised technical departments are always at your disposal for consultation and advice.
* Complete surveys can be carried out and estimates submitted without cost or obligation.

Branch offices throughout the country.

INDUSTRIAL ENGINEERING LIMITED, VOGUE HOUSE, HANOVER SQUARE, LONDON W.1. HYDe PARK 1411 (7 LINES)

TOMO double-glazing at London Airport

We think you'll agree that the appearance of these attractive offices at London Airport is enhanced by their TOMO double-glazed WINDOWS. But that's only a small part of the story. TOMO double-glazing also offers excellent thermal-efficiency values, remarkable sound-reduction properties, finely-controlled ventilation and total indoor window-cleaning.

On the subject of thermal efficiency, we should like to refer you to the report of a recent B.R.S. test quoted on the right. It speaks volumes. When you work within whistling distance of aircraft, sound reduction becomes a matter of vital importance. Here TOMO WINDOWS score heavily. The total reduction in sound level depends finally, of course, on the thickness of glass employed and the space between panes. Using 32-ounce glass spaced at 1¾in, TOMO double-glazing gives a reduction of approximately 40 decibels and will, we hope, save Shell-Mex and Esso personnel not a few headaches in the future.

One last point, TOMO double-glazed WINDOWS are suitable for inward or outward opening and can be top-hung, bottom-hung, side-hung or pivot-hung. Any further information you may require will be gladly supplied.

Administrative and operations offices for aviation fuel supplies at London Airport, half of which are occupied by Shell-Mex & B.P. Ltd. and the other by Esso Petroleum Co. Ltd. Architect: Frederick Gibberd, C.B.E., F.R.I.B.A., M.T.P.I.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

★ BUILDING RESEARCH STATION TESTS ★

★ *When a standard-production TOMO WINDOW Wall-Unit (8ft. × 8ft.) was tested at the Building Research Station, Garston, the mean thermal transmittance of the complete unit was found to be 0·31 B.Th.U./sq ft./h/°F. This is equal to the thermal transmittance of a traditional 11-in cavity brick wall! This impressive result was further improved to 0·29 when the TOMO pleated blinds, fitted between the panes, were lowered. The U-value of the window-area only was found to be 0·38 which, with TOMO pleated blinds down, became 0·35. At 0·38, TOMO double-glazed WINDOWS are substantially (29%) better than the U-value of 0·47 quoted for conventional double windows in the I.H.V.E. Guide to Current Practice,* 1955. ★

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

FOR UTMOST EFFICIENCY IN THERMAL INSULATION AND SOUND REDUCTION—

SPECIFY TOMO DOUBLE GLAZED WINDOWS

—purpose-made in finest timbers to Architect's size, style and finish

NEW!

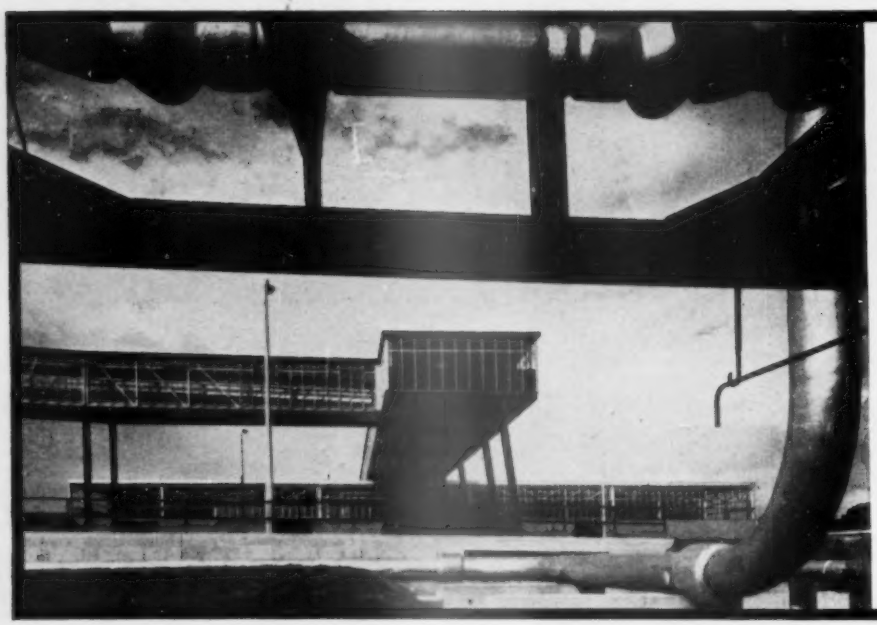
A Stock-size TOMO double-glazed 'Picture' Window, horizontal-pivot hung, to the BSS644 overall size 5ft 11½in wide by 4ft 0½in high. Made from best quality softwood, ready-primed; £25 net ex-works.

—NOW AVAILABLE FROM STOCK!

TOMO TRADING CO. LTD., Cowley Peachey, Uxbridge, Middx.

Telephone: West Drayton 3751 (10 lines)

patent glazing is like windows only BIGGER and often it's IN THE ROOF and it doesn't have PUTTY



The new Heinz factory at Wigan is the largest factory to be built in Britain since the war. Shown here is the ancillary can factory, clad in Williams & Williams "Aluminex" vertical patent glazing. The continuous opening lights are gear-operated to give critical control of ventilation.

Architects:
J. Douglass Mathew and Partners, London in association with Skidmore, Owings and Merrill, New York.

The new Heinz factory is turning depressed Wigan into a boom area. By the time it is in full production it will be employing some 3,000 local people and taking up a good deal of the local agricultural produce, which is both abundant and high in quality.

The 127-acre site has a gradient of 1 in 40 which has been exploited to give the factory two working levels—both accessible to lorries.

Manufacture starts on the upper level with unloading, storage, preparation and cooking. Products are then gravity fed to the lower level for can filling, sterilization, packing, warehousing and finally dispatch.

- The presence of old coal mines underneath the site meant careful positioning of the component buildings. The can factory is therefore at some distance from the food production unit

WILLIAMS & WILLIAMS ALUMINEX SIDEWALL GLAZING HAS BEEN USED TO CLAD

the service gantry which takes finished cans across to the main factory for filling

and the covered footway connecting the two factories.

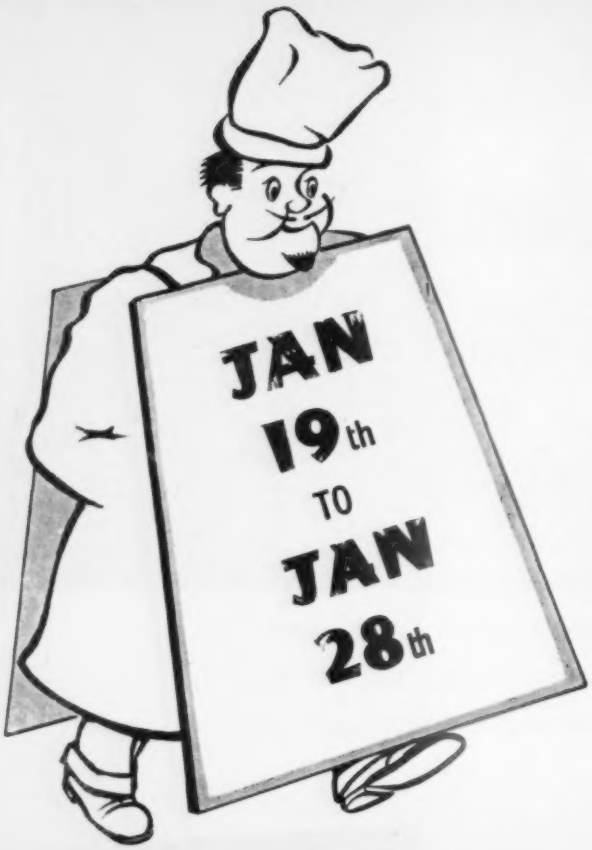
and is linked to it by a service gantry which feeds the finished cans into the appropriate stage of production process.

forward looking building products **WILLIAMS & WILLIAMS**

Williams & Williams make steel windows of every description, ALOMEGA and other aluminium windows, movable steel and glass partitioning, ALUMINEX patent glazing, WALLSPAN curtain walling and many other products, all of which can be seen at our permanent window exhibition at No. 36, High Holborn, London, W.C.1.
WILLIAMS & WILLIAMS, RELIANCE WORKS, CHESTER · WILLIAMS HOUSE, 37-39 HIGH HOLBORN, LONDON, W.C.1

Visit

HOTELYMPIA 1960



SALON CULINAIRE
HOTEL FURNITURE
BAR AND SNACK BAR FEATURES
FROZEN FOODS
NEW COOKING EQUIPMENT
AUTOMATION IN CATERING
NEW COOKING METHODS

More than 100,000 items on show.

Everything for every type of catering establishment.

Open daily 10 a.m. — 6 p.m. (Ex. Sunday)
(*Jan. 21 & Jan. 27, 10 a.m. — 8 p.m.*)

OLYMPIA · LONDON

ORGANISERS THE HOTEL & CATERING EXHIBITION (LONDON) LTD., in association with THE CATERER & HOTEL KEEPER and HOTEL & CATERING REVIEW

You can Concrete in Frosty Weather!

Concreting of important constructional work must continue even in 25° of frost. The answer to your frosty weather problem is

SEALOCRETE

DOUBLE STRENGTH PREMIX

SEALOCRETE PRODUCTS LIMITED

ATLANTIC WORKS · HYTHE ROAD · LONDON N.W.10

Telephone: LADbroke 0015 PBE

Grams and Cables: SEALOCRETE, WESPHONE, LONDON

These names make aluminium news.

Imperial Chemical Industries and Aluminum Company of America, household words on both sides of the Atlantic, combine to form a new name in aluminium – ***IMPALCO.***

Backed by ALCOA's unmatched experience in the specialised field of aluminium and by I.C.I.'s great resources and world-wide organisation, ***IMPALCO*** will provide a new major source of aluminium.

impalco

for aluminium

Imperial Aluminium Company Limited · Birmingham

doing what comes neighbourly...

Authority: Surrey County Council.
County Architect: J. Harrison, A.R.I.B.A.

Mutual protection is the neighbourly policy of the Cellon Company and the Kingston Fire Brigade next door — protection from fire for the Cellon premises, and weather protection by Cerrux paints for the Fire Station. Cerrux paints are specified for long-lasting protection in schools, hospitals, factories, offices and public buildings throughout the country.

...the finishing touch is

CERRUX

CELLON LIMITED • KINGSTON-ON-THAMES • KINGSTON 1234
CVS-933

Architect:
John Dryburgh, A.R.I.B.A., A.R.I.C.S., A.M.T.P.I.,
City Architect, Cardiff.

Contractors:
George Wimpey & Co. Ltd.

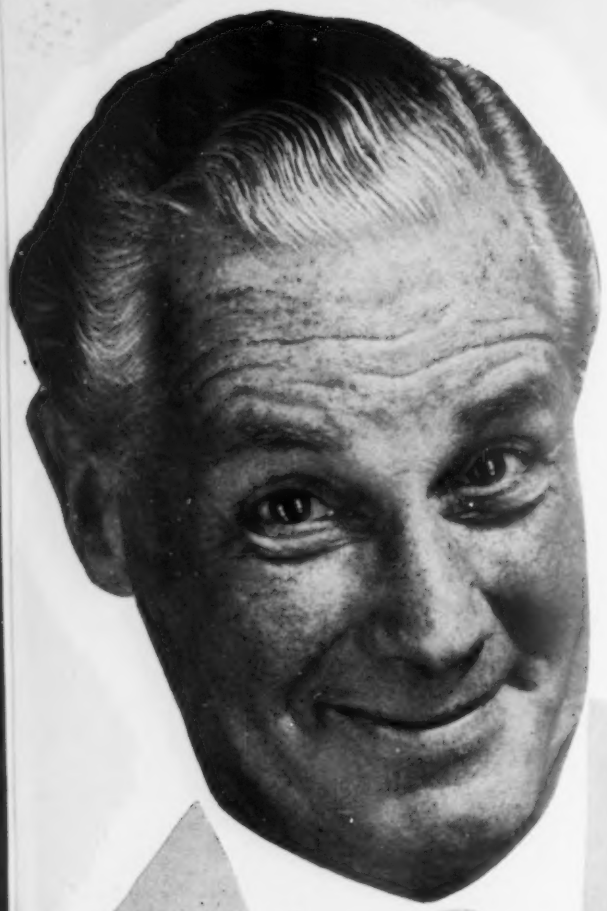
JONWINDOWS STANDARD AND PURPOSE MADE
at GABALFA FLATS, Cardiff

A block of multi-storey flats fitted with Standard Reversible Casements. Large picture windows can be reversed from the inside for easy cleaning. Whether standard or purpose-made, Jonwindows have a contribution to make to the architectural concept.

JOHN WILLIAMS OF CARDIFF LTD

EAST MOORS ROAD, CARDIFF. Telephone: CARDIFF 33622 (12 lines). Telex: 49303.

B*



Architects and consulting engineers know that it pays to specify G.E.C. . . .

STATE HOUSE. Architects: Trehearne & Norman Preston & Partners. Builders: Tersons Ltd. Electrical Contractors: Rashleigh Phipps & Co. Ltd. G.E.C. equipment: 2-Main Switchboards, Cubicle Pattern, 2-M.W. Switchboards, all 500 volt, Switch and Fusegear, Rising Main Service Units, Alum. Rising Main Busbars, Steel Cable Trunking, Conduit.

MINSTER HOUSE. Architects: Trehearne & Norman Preston & Partners. Builders: John Mowlem & Co. Ltd. Electrical Contractors: Rashleigh Phipps & Co. Ltd. G.E.C. equipment: Main Switchboard, all 500 volt Switch and Fusegear, Rising Main Service Units.

G.E.C. INSTALLATION

electrical contractors know that it pays to use G.E.C. equipment.

From local offices strategically located throughout the country, the Installation Equipment Division of G.E.C. gives unrivalled, on-the-spot, service right through from initial planning to final completion. Add to this a jealously guarded reputation for reliability, and it becomes obvious why G.E.C. switchgear, conduit, and other electrical accessories in vast quantities are being used in many of Britain's finest buildings, including these exciting new London landmarks.

BUCKLERSBURY HOUSE. Architects: Owen Campbell Jones, F.R.I.B.A., F.R.I.C.S. Builders: Humphreys Ltd. Electrical Contractors: Troughton & Young Ltd. G.E.C. equipment: Distribution Switch and Fusegear, Conduit, 400 and 100 amp. Busbar Trunking, Floor Ducting, Electric Wiring Accessories.

EQUIPMENT DIVISION

THE GENERAL ELECTRIC CO. LTD.

MAGNET HOUSE, KINGSWAY, LONDON, W.C.2.

SWITCH AND FUSE GEAR
H.R.C. FUSES
OVERHEAD BUSBARS
RISING MAINS
CONDUIT
CABLE TRUNKING
UNDERFLOOR CABLE DUCTS
ELECTRIC
WIRING ACCESSORIES
BELLS

PRE CAST

★ ★ ★ ★ ★ ★ ★ ★

REINFORCED CONCRETE BUILDING STRUCTURES

A SUMMERFIELD COMPANY

Our Structural Concrete Building Framework is available for normal Portal, Northlight and Multi-Storey buildings. We design, supply and erect all classes of precast framed building structures to suit Architect's exact requirements and to conform to Council Bye-Laws.

We are happy to submit schemes and competitive quotations promptly upon receipt of inquiries.

DESIGNED SUPPLIED ERECTED

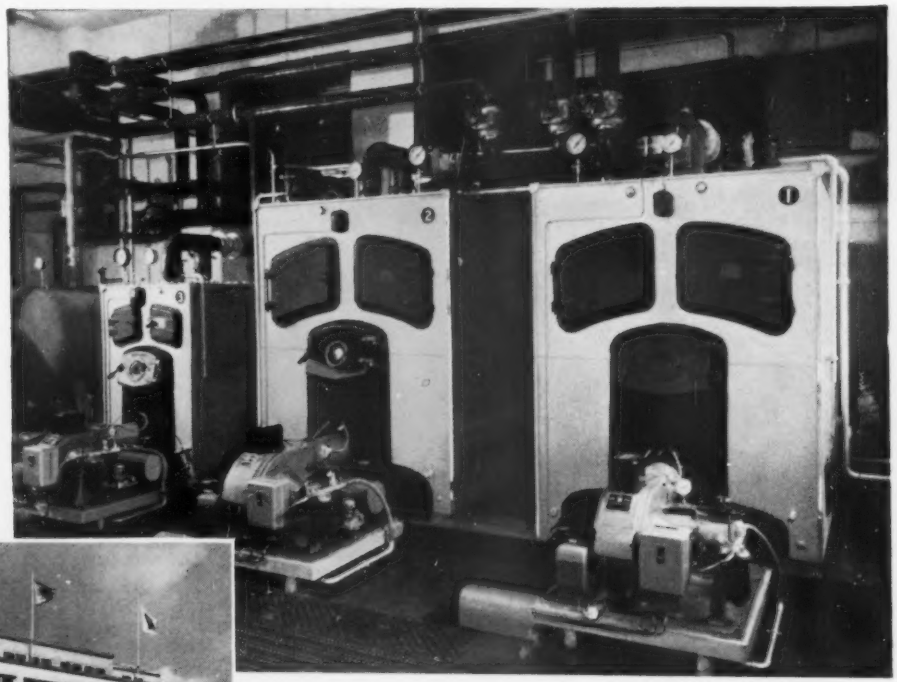
ROOF CLADDING ETC.

PJ

CONDUIT LANE,
HIGH STREET, HODDESDON, HERTS.
Phone: Hoddesdon 2247-2248 & 4792
London Office: 51 Gordon Square, W.C.1
Phone: MUSeum 6984/5

Precast Utilities (LONDON) LTD.

Shell-Mex & B.P. Limited chose IDEAL BRITANNIA BOILERS for their oil-fired installation in Shell-B.P. House, Bristol



Two Ideal Britannia oil-fired boilers for central heating and one for indirect hot water supply have been installed in the new Shell-B.P. House in Wine Street, Bristol.

Ideal Britannia Boilers are made in 49 sizes with capacities ranging from 40,000 to 2,492,000 B.T.U./hour. A distinct advantage of the Britannia is that the firebox gives adequate space for burning the quantity of oil necessary to provide the catalogue ratings with the highest efficiency. Tests show up to and over 80% efficiency calculated on the gross calorific value of the oil.

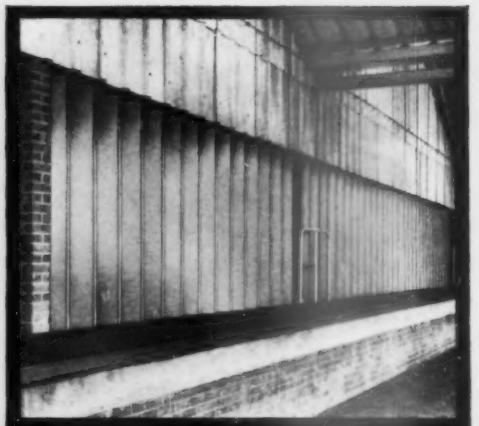
IDEAL BRITANNIA BOILERS

IDEAL BOILERS & RADIATORS LIMITED · IDEAL WORKS · HULL

451

BOLTON

COLLAPSIBLE SHUTTER DOORS



1

2

3

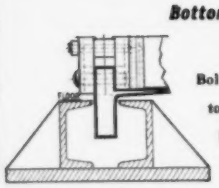
The illustrations show how versatile the Bolton Patent Shutter Door really is and installations everywhere are giving lasting trouble-free service. The doors are craftsman built from tested materials to a design which has never been bettered and hand or power operation may be had for any situation. Some of the details of the design and reasons for the popularity of Bolton Patent Shutter Doors will be seen from the diagrams.

1. Two hand operated doors fitted to a loading bay for the British Oxygen Co. Ltd., Carlisle.
2. Two electrically operated doors at Metropolitan-Vickers Electrical Co. Ltd., Manchester.
3. One pair of electrically operated doors at a test bed for the Bristol Aeroplane Co.

The illustration right shows a partly bunched Bolton Patent Shutter Door at Onehunga War Memorial Swimming Pool, New Zealand.

For full details write now for our comprehensive Catalogue No. AB306

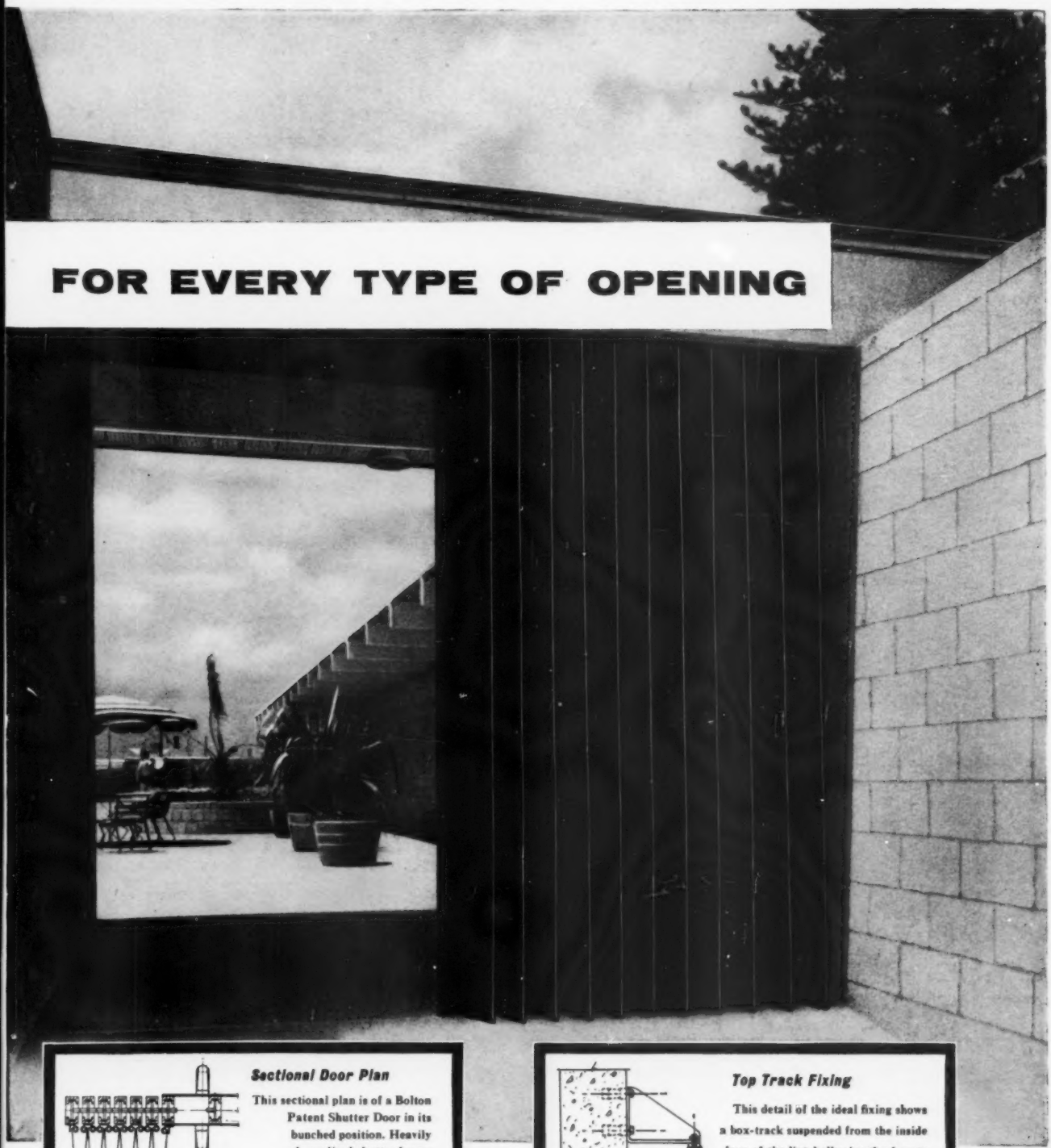
Bottom Track

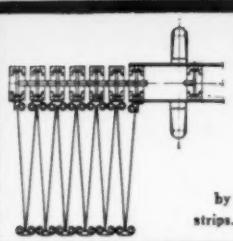


This is purely a location guide since Bolton Patent Shutter Doors are entirely top hung. The bold outline indicates the bottom guide piece which supports the heavily sherardised leaves.

BOLTON GATE COMPANY

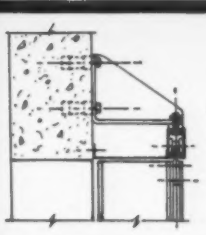
FOR EVERY TYPE OF OPENING





Sectional Door Plan

This sectional plan is of a Bolton Patent Shutter Door in its bunched position. Heavily sherardised shutter leaves are curled round ¼" dia. wire reinforcement and are connected by full height bronze or alloy hinging strips. Steel pickets are at the rear side.



Top Track Fixing

This detail of the ideal fixing shows a box-track suspended from the inside face of the lintel allowing the door to bunch clear of the opening. Other arrangements can be made to suit your particular needs.

LIMITED BOLTON LANCASHIRE *The BIG name in doors*

Branches at Belfast, Birmingham, Bristol, Dublin, Liverpool, London, Manchester, Newcastle-on-Tyne.

dm BG 306

Modernise with HARD COKE

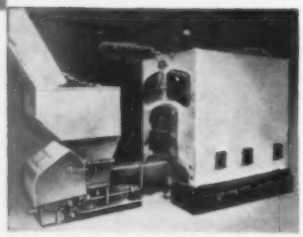
HARD COKE is widely used to heat flats, offices, hotels, schools etc. Coke-burning equipment can be as highly efficient, automatic and trouble-free as any other fuel system which probably costs FAR more to install and to run. Users prefer Hard Coke because it is made in plants designed essentially for producing cokes and these are technically suited and carefully graded for their specific purposes. Specially selected coals are used which are washed and crushed before carbonisation.

for LOW COST heating—automatic and trouble-free

THERE are available automatic coke boilers outstanding for their efficiency and economy and which operate unattended for long periods. Also chain-grate stokers, underfeed stokers and preburner units for converting boilers to automatic firing and higher efficiencies.

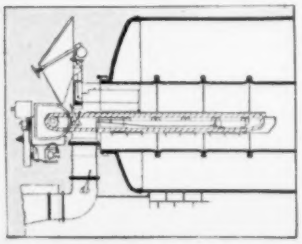
For the larger sectional boilers there are inexpensive, easily-applied conversion units which will raise the efficiency of the boiler, reduce the fuel consumption and provide accurate thermostatic control with time switches. The cost of the conversion has been saved in little more than a year from fuel savings, burning Hard Coke.

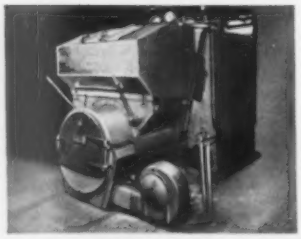
Further information will be supplied by the British Coking Industry Association representing the producers of Hard Coke, whose members include the leading Steel Companies, the National Coal Board and independent producers.



"BIGWOOD" Underfeed Stoker fitted to a sectional boiler.

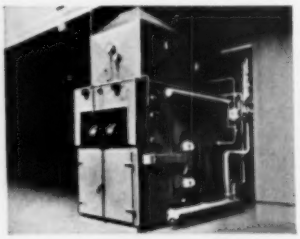
Cross-section of the "OLDBURY" Chain Grate Stoker fitted to a Lancashire boiler.

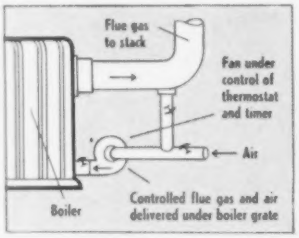




A "SUXE" pre-burner fitted to a sectional boiler for Central Heating.

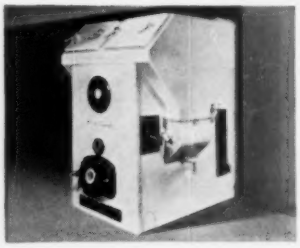
Redfyre "EMMA" coke-fired Boiler for Central Heating.




Flue gas to stack
Fan under control of thermostat and timer
Air
Boiler
Controlled flue gas and air delivered under boiler grate

G.A.P. conversion unit fitted to sectional boiler for Central Heating.

"WATTS" coke-fired magazine boiler for Central Heating.

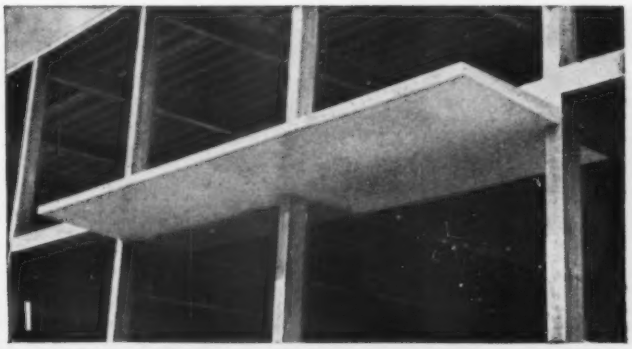


To conform with the CLEAN AIR ACT:

On the 1st June, 1958, the general industrial provisions of the Clean Air Act came into force. Have you a furnace or boiler which is difficult to operate smokelessly? A change to hard coke may very well be a simple solution to your problem. With attention to firing details such a change will give you added economy.

THE BRITISH COKING INDUSTRY ASSOCIATION · 74 Grosvenor Street, London, W.1.
Phone: MAYfair 9736

HCI 24



SPC

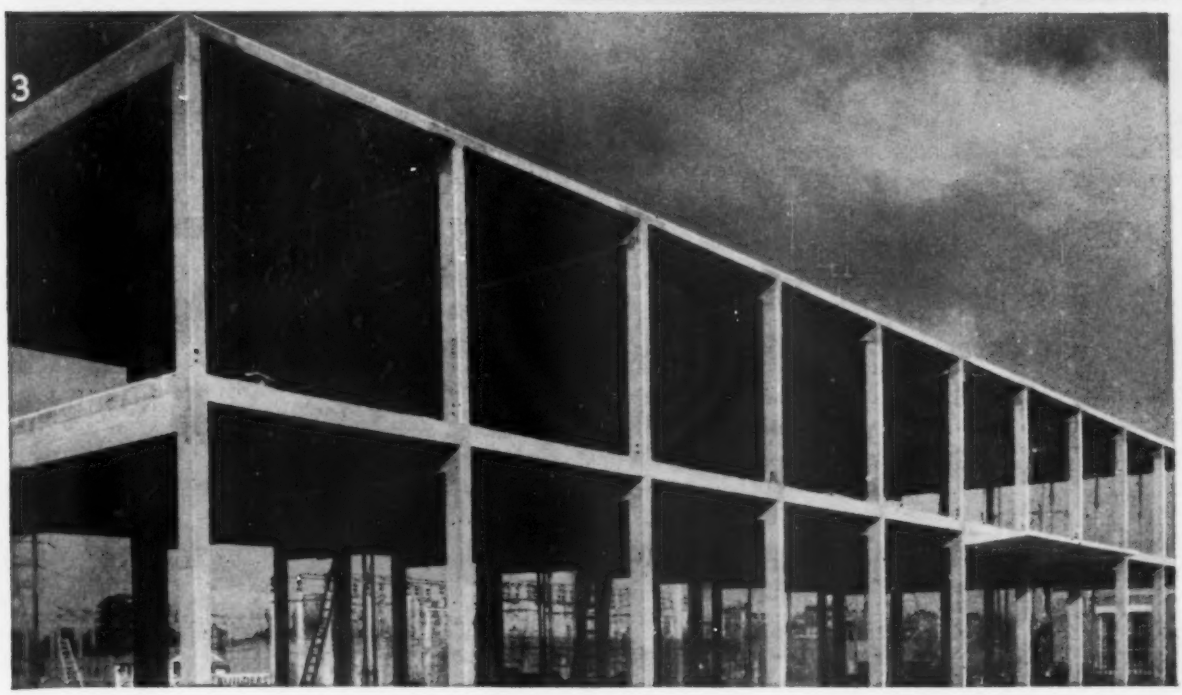
AND **SIEGWART** AT CHELTENHAM

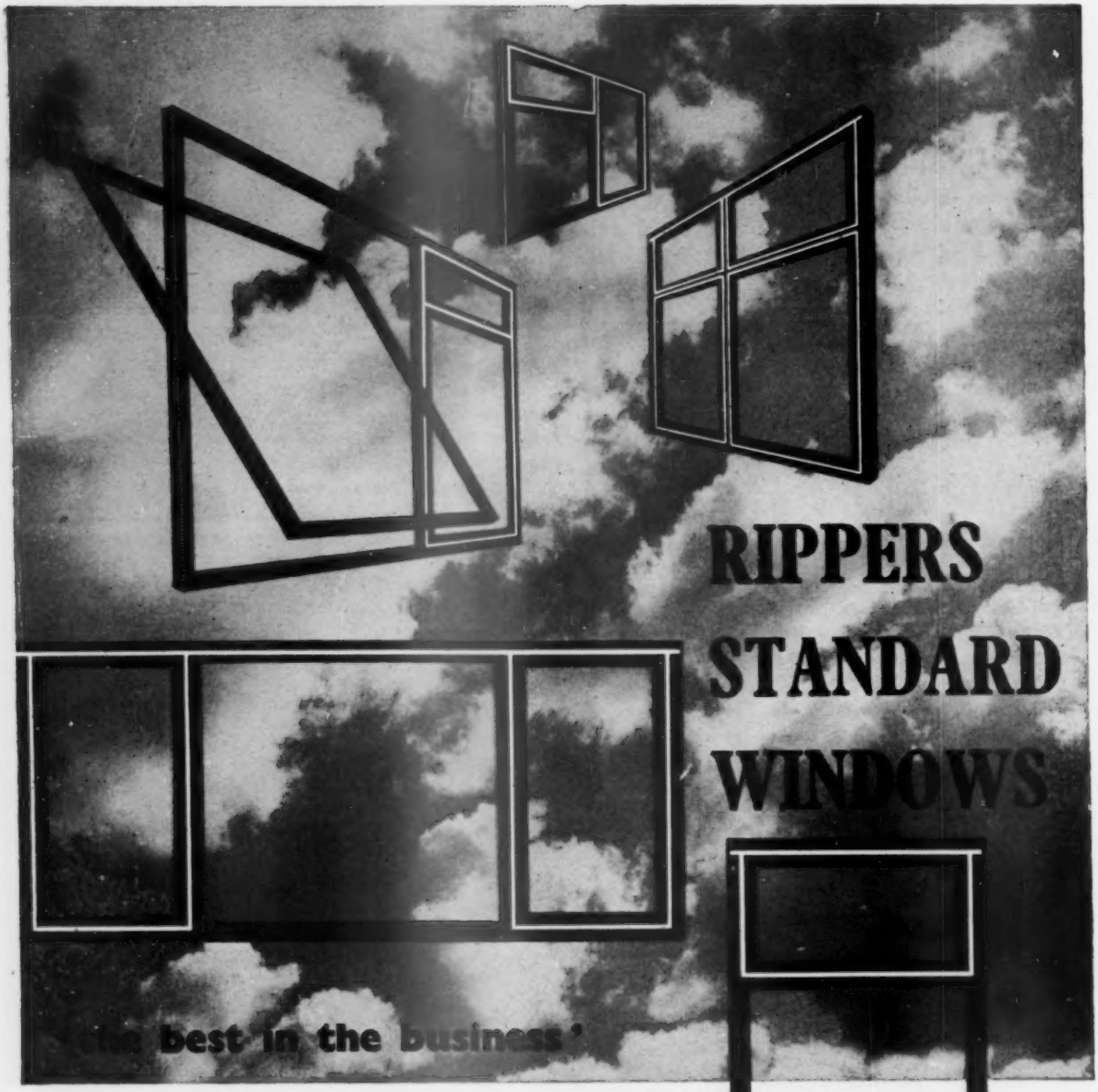
THE PHOTOGRAPHS SHOW:
1. Insitu canopy with an integral facing of artificial stone.
2. Siegwart Precast Inverted Trough Units embodying fixings for suspended ceilings.
3. General view of R.C. Frame construction.

Midlands Electricity Board office and stores District Depot, Hesters Way, Cheltenham. Contractor, Messrs. William T. Nicholls Ltd. Our newly formed Associate Company S.P.C. has been responsible for the erection of the R.C. frame, floors and roofs of this building for the Midlands Electricity Board.

We aim to provide a complete quality service in concrete that will be available throughout England. We will be pleased to have the opportunity of putting our specialist organisation at your disposal at any stage of the planning. Our technical advice is always freely given.

SITE PRECAST CONCRETE LTD., Berkeley House, Hagley Road, Birmingham, 16. Tel: Edgbaston 3960. Gable House, High Street, Rickmansworth. Tel: Rickmansworth 2268





'you'll be glad you chose WOOD windows'

When you order windows, external door frames, internal door frames or kitchen units, make sure you buy Rippers—the finest standard joinery obtainable. Over sixty years experience is behind Rippers quality—

Write today for our free Catalogue: it describes over three hundred designs from which endless window combinations can be arranged, and includes descriptions of all our products. Apply for your free catalogue to Dept. ABN.6/1.

RIPPERS STANDARD KITCHEN UNITS

RIPPER WOODWORK

RIPPERS LIMITED

CASTLE HEDINGHAM, HALSTEAD, ESSEX
TELEPHONE: 191 HEDINGHAM (4 LINES) TELEGRAMS: RIPPERS, CASTLE HEDINGHAM
LONDON OFFICE: 9, SOUTHAMPTON PLACE, LONDON, W.C.1. TELEPHONE: CHANCERY 8306/7

A woman loves the

CRANE 20

...and her man applauds her choice

As the little woman in the advertisement says, "Even I can understand the ins and outs of my Crane 20." In the first place it appeals to her for its extreme smartness; then for its compactness, simplicity and cleanliness in operation; most of all, for its absolute efficiency in her kitchen. Points that appeal to her husband are its suitability for use with a storage tank of 25-35 gallons capacity, its rating of 20,000 B.t.u.'s per hour, its thermostatic control, its economical production of hot water for normal family needs on less than 1 cwt. of fuel a week, and, of course, the very reasonable price of £25.

The Crane 20 is so easy to manage

- *EASY TO FUEL. The fuelling lid is hinged and, with a normal fire, is comfortable to handle.
- *EASY TO CLEAR ASH. By means of the very efficient shaking grate, the ash is cleared with the minimum of shaking. The ashpan is extra deep.
- *SIMPLE TO KEEP CLEAN. The smooth compact design offers no awkward projections.
- *ECONOMICAL. It is **thermostatically controlled** for fuel economy.
- *SMART, MODERN DESIGN. In cream or white with a black vitreous enamelled top-plate.

The Crane 20 Domestic Boiler has been accepted by The Council of Industrial Design for display in The Design Centre, London.

PRICE £25

(Bower-Barffed or glass lined firepot can be supplied for soft water areas at extra cost)

G.11

Write today for descriptive leaflet to CRANE Ltd., 15-16 Red Lion Court, Fleet Street, London, E.C.4: *Works:* Ipswich. *Branches:* Birmingham, Brentford, Bristol, Glasgow, Leeds, London, Manchester.

Every FORD

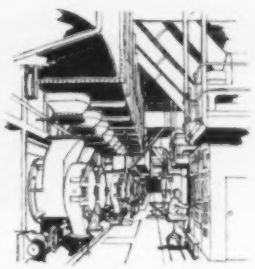
Progressive industry is going

starts on Coal

FIVE STAR MOTORING—gleaming, colourful, swift and safe—begins at Dagenham, a giant factory that covers over 550 acres of a once desolate marsh. The judgment and business acumen of the men who have made Ford one of our great key industries is reflected in every operation in the factory, every decision in the boardroom.

In the impressive steam power plant that supplies the entire factory, coal is the chosen fuel. Coal has been chosen because pulverised coal—fired in powder form—*gives accurately controlled heat with the lowest fuel bills.* Coal has the invaluable long-term advantage that it is a home-produced fuel which can supply all the fuel needs of British industry for decades to come.

If your voice is a deciding one in the choice of fuels, remember Ford. Beneath its smokeless chimneys is a wealth of knowledge and applied experience that is an invaluable example of hard thinking and wise decisions. Ford say *coal.* That's five-star wisdom.



Here are some key facts and figures about the Ford main power station

Number of boilers. . 4 high-pressure water-tube boilers, with superheaters, airheaters and economisers
Steam pressure ..... 1250 lbs. per sq. inch
Steam temperature..... 940°F
Feed temperature..... 380°F
Continuous maximum rating.... 1,000,000 lbs. of steam per hour (largest unit 400,000 lbs. per hour)
Method of firing ..... Pulverised fuel
Fuel..... Coal

ISSUED BY THE NATIONAL COAL BOARD

***forward on* COAL**

Shanks

BATHROOM FITTINGS

SHANKS & CO., LTD., TUBAL WORKS, BARRHEAD, SCOTLAND

There's a Johnson seal for every floor

Dry in 15 minutes!

An extremely quick-drying floor seal which becomes tack-free after 15 minutes and allows floors to be back in use within an hour of application.

A seal and a finish

A tough oleo-resinous floor seal with excellent slip-retardant properties. Specially prepared to resist scuffing from rubber soles on gym floors.

Penetrating and extra tough

A heavy duty penetrating seal which gives floors the toughest kind of protection against wear, and seals them against water, oil and dirt stains.

FREE ADVISORY SERVICE

Johnson's have a nationwide team of floor experts—known as 'J-Men'—ready to solve your floor problems. Just telephone or write.

J man service

JOHNSON'S WAX

S. C. JOHNSON & SON LTD
West Drayton · Middlesex · Tel: 2244

✻ PROVED by experience

Architects all over the world confidently specify SECOMASTIC for joint sealing, because SECOMASTIC has been proved to possess all the properties required in a mastic. Formulated on the results of 14 years' continuous laboratory research and field experience in more than 40 countries, SECOMASTIC is the answer to most of the joint sealing problems encountered in modern building construction.

Crittall window and panel units forming a Curtain Walling, sealed with SECOMASTIC, at Roman House, London Wall. Architect: R. N. Wakelin of Campbell-Jones & Sons.

Photograph by courtesy of the Crittall Manufacturing Co. Ltd

Specify SECOMASTIC

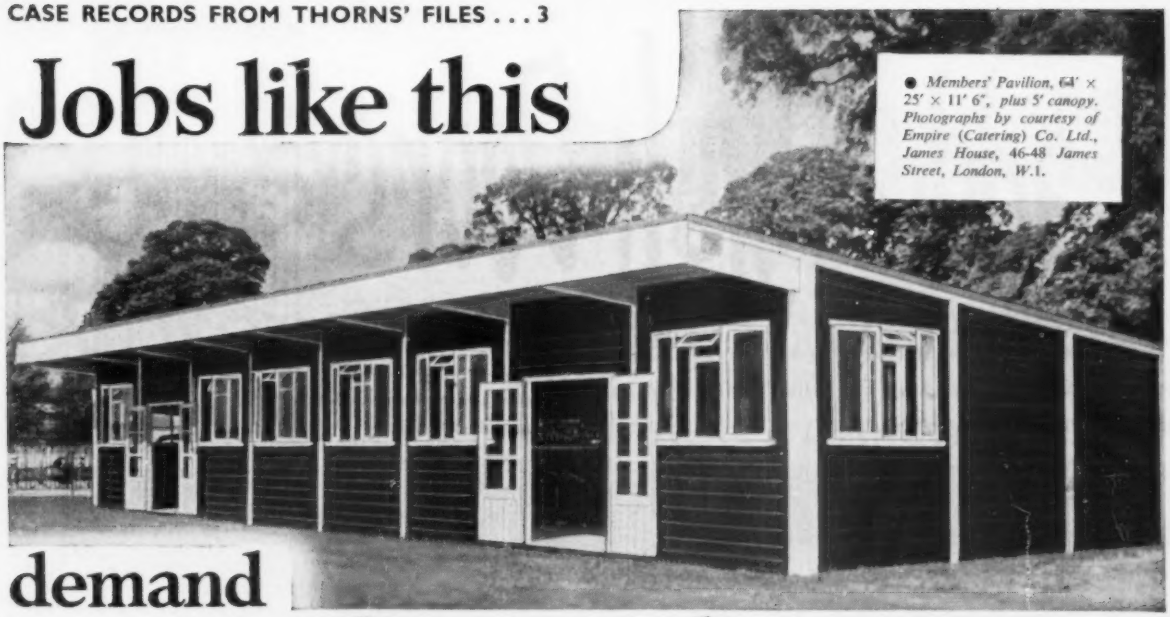
FOR SEALING METAL WINDOWS
and all other joints subject to movement

For further information please write to the Building Department
SECOMASTIC LTD., BRACKNELL, BERKS. Tel: Bracknell 910 (10 lines)

Secomastic products also include: 'Secostrip' pre-formed mastic strip and 'Galvafroid' zinc-rich paint.

CASE RECORDS FROM THORNS' FILES . . . 3

Jobs like this

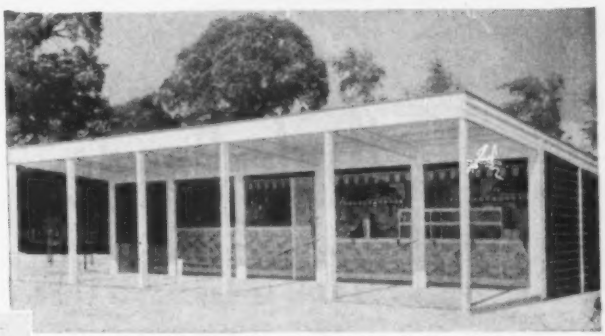


● *Members' Pavilion, 64' × 25' × 11' 6", plus 5' canopy. Photographs by courtesy of Empire (Catering) Co. Ltd., James House, 46-48 James Street, London, W.1.*

demand *versatility... speed... economy...*

SPECIFICATION

3 Timber buildings, of mono pitch design, with canopies along fronts. Weatherboarded walls; boarded roofs, covered with green mineralized roofing felt. Full-length partition and counter in each building. Walls and roofs lined with fibreboard. Roller shutter doors for two buildings. Delivered and erected on prepared bases and decorated in selected colours.



● *Grand Stand Pavilion, 40' × 15' × 9' 6" × 8', plus 10' canopy.*

● *Public Pit Pavilion, 64' × 11' × 8' × 7', plus 5' canopy.*

PAVILIONS AT GOODWOOD MOTOR RACING TRACK

Having received an outline of what was required, Thorns designed three special buildings, as illustrated here. These were approved, and the order was placed on March 3rd. The essential thing was to get at least two of them in use for the Easter meeting on April 7th. This left little time for producing two completely non-standard buildings, erecting and decorating them, but Thorns rose to the occasion and they were both in use at the Easter meeting. The third one was completed in time for Whitsun.

Generally speaking, it is quicker and more economical to use one of Thorn's standard systems of construction, but Thorns are equally capable of designing and producing buildings to a customer's special requirement.

THORNS

THORNS also have three standard systems of prefabrication, capable of meeting almost all requirements.

THORNS are prepared to supply only, supply and erect, or carry out the complete works.

Catalogue of designs and prices on request.

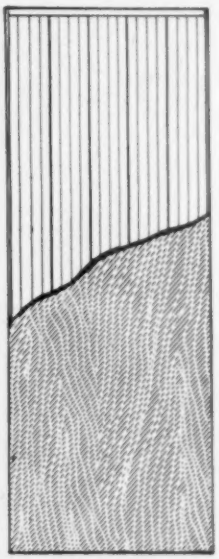
Ask THORNS to quote for your own job.

J. THORN & SONS LTD. (Dept. 113) BRAMPTON ROAD, BEXLEYHEATH, KENT

BD 514

C

Sadds FINE Flush Doors



THE GOLDHANGER

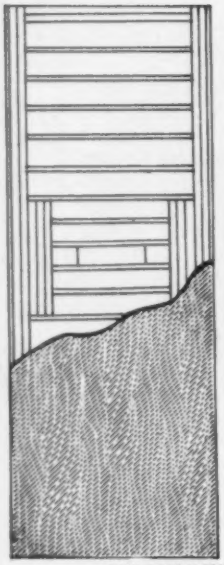
For public buildings, offices, houses, flats. Sanded to a fine finish for painting and with careful attention to the veneers for polishing.

Robust and reliable under rigorous conditions of wear.

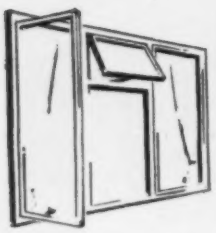
Timber core infilling machined and assembled by precision methods in our modern factory.

All facings and edge lippings are secured to the core with waterproof Urea Formaldehyde adhesive.

The rails and girders are stub-tenoned into grooved styles.



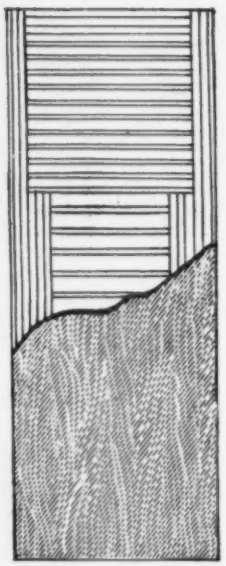
THE BEELEIGH



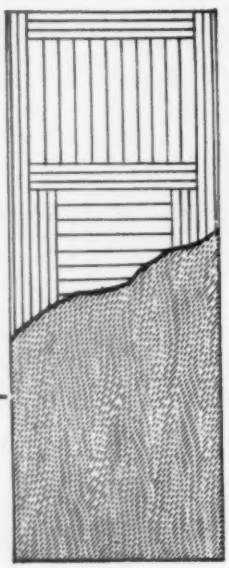
High-Grade WOOD WINDOWS

To British Standard Specification

CASEMENT
PIVOT HUNG
SLIDING SASH



THE CHELMER



THE MALDON

ALSO KITCHEN UNITS AND STAIRCASES

John SADD & SONS LIMITED

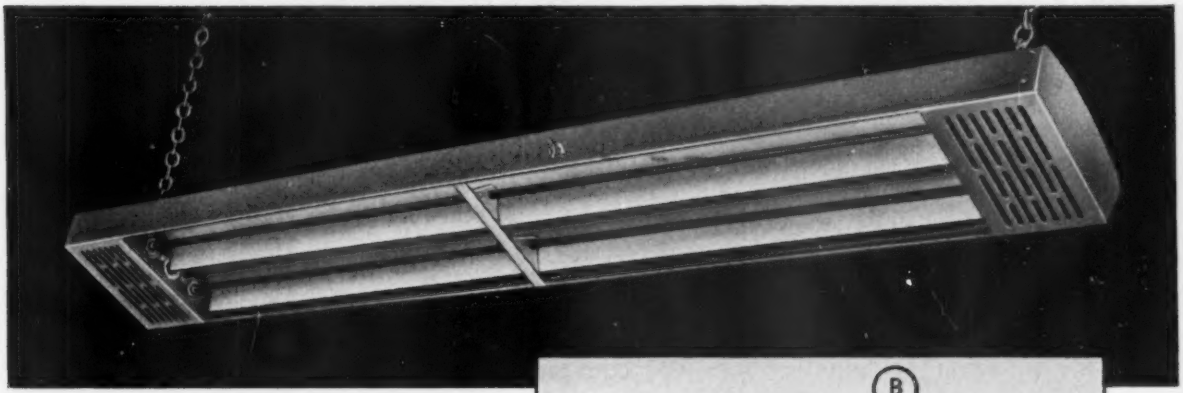
FULLBRIDGE WORKS, MALDON, ESSEX. Telephone Maldon 941

LONDON OFFICE, Bank Chambers, 329 High Holborn, W.C.1. Telephone CHAncery 7214

NEW! TWIN-ZONE

overhead radiant heaters

narrow beam or broad beam from one model



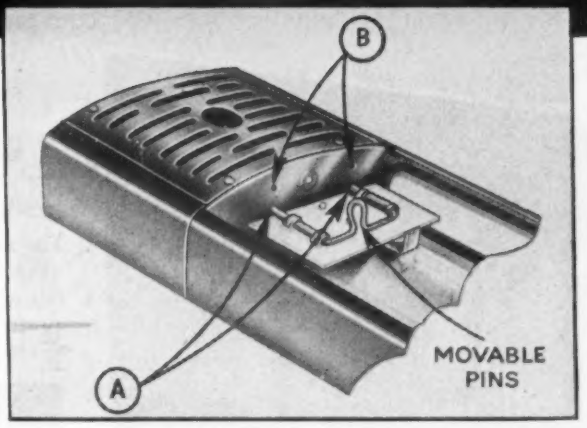
Of entirely new and unique design, these Twin-Zone overhead Radiant Heaters, in 1½ or 3 kW. loading, will give you more efficient and versatile heating than ever before. New high-density elements, completely safe in use, produce more heat per inch and the polished aluminium reflector radiates it with the maximum effect.

By a simple adjustment of the reflectors, Twin-Zone Radiant Heaters can be preset to give a concentrated or a widespread beam of warmth according to requirement.

Twin-Zone Radiant Heaters are ideal for use in commercial, industrial or public buildings and other premises where only intermittent heating is required or where poor thermal insulation makes overall air heating impracticable.

(Not available for domestic use).

- *Versatility*
- *Low Price*
- *High Efficiency*
- *Attractive Slim Design*
- *Long Life 'Safety' Element*



A *Narrow beam position providing concentrated warmth over isolated sections of large buildings such as loading bays, hangers, machine shops and garages.*

B *Broad beam position giving a widespread zone of heat and can be used for complete heating installations in churches, village halls, community centres and similar buildings whether used intermittently or continuously.*

1½kW — £7 . 10 . 0. (HO 6434) **3kW — £9 . 2 . 6. (HO 6435)**

G.E.C.

The G.E.C. specialises in industrial heating and manufactures every type of appliance. We shall be very pleased to give you free advice on any of your heating problems.

FOR SPACE HEATING

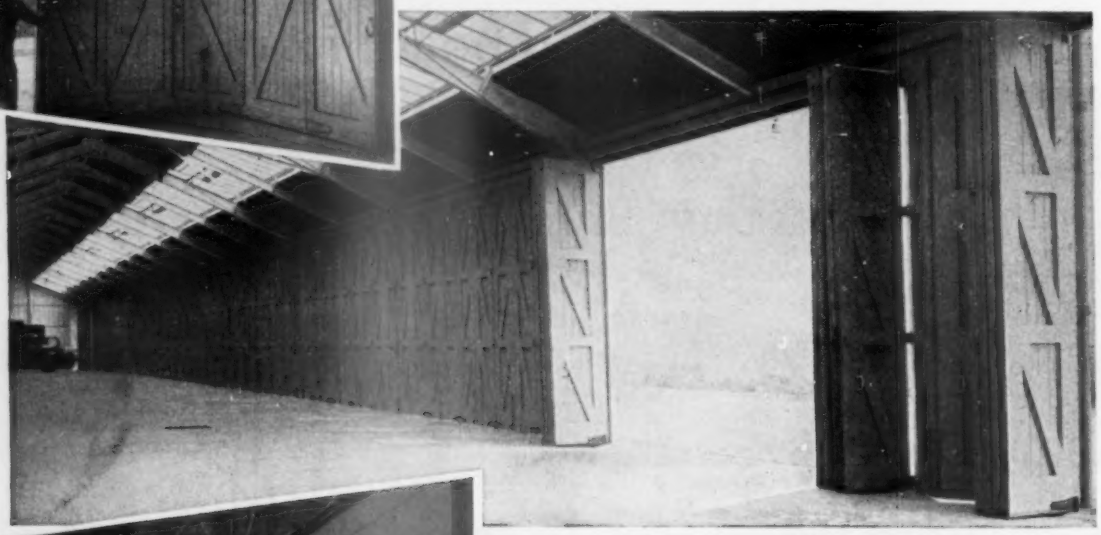
THE GENERAL ELECTRIC CO. LTD., MAGNET HOUSE, KINGSWAY, LONDON, W.C.2.

Famous

'TANGENT'

for DOORS SLIDING AND FOLDING and
DOORS SLIDING ROUND THE CORNER
up to 20 ft. high and for any width of opening.

Despatch bays of William Jackson & Son Bakery, Stockton-on-Tees. Opening 84ft. wide overall.



18 ft. high 'Straight Run' and 'Tangent' doors at the Maidstone and District Motor Service Borough Green Depot.

STRAIGHT-RUN

SINGLE — DOUBLE — TRIPLE TRACKS

For all Industrial Doors made in either wood or metal.

TOP TUBULAR TRACKS (10 sizes) carry the weight from above.

BOTTOM ROLLERS (4 sizes) take the weight on the ground.

'ULTRA'

OVERHEAD GARAGE DOOR GEAR

Overhead Doors are safe—quiet—always positive—on Henderson 'ULTRA' Gear. 4 Standard Sets available for doors from 40 lbs. to 210 lbs. Request List OD/AB.

We urge discussion during the planning stage to determine the right gear for closing doorways most economically.

Unrivalled Drawing Office Service offered without obligation.

Qualified Technical Representatives readily wait upon you.

Every room in every Architect's office should have a Henderson Catalogue 55. If not, write for a copy.

Henderson

SLIDING DOOR GEAR

for any door, window or partition that slides or folds

P. C. HENDERSON LIMITED, HAROLD HILL, ROMFORD, ESSEX. Tel.: INGrebourne 41111 (Dial I.L.4).

Sole makers of 'Tangent', 'Ultra', 'Ultramatic', 'Marathon', 'Lobby', 'Handy', 'Council', 'College' 'Parlour', 'Phantom', 'Mansion', 'Loretto', 'Zed', 'Double Top', 'Sterling'.

H137

Vol. 217 No. 1

THE ARCHITECT & BUILDING NEWS

6 January 1960

The "Architect and Building News" incorporates the "Architect," founded in 1869, and the "Building News," founded in 1854
Annual subscription: home, £2 18s. 0d.; overseas, £3 8s. 0d.; Canada and U.S.A., $10.00. Registered as a Newspaper
Published by ILIFFE & SONS LTD., DORSET HOUSE, STAMFORD STREET, LONDON, S.E.1
Telephone: Waterloo 3333 (60 lines). *Telegrams:* "Architonia, Sedist, London"

Branch Offices: Coventry: 8-10 Corporation Street; telephone, Coventry 25210. Birmingham: King Edward House, New Street, 2; telephone, Midland 7191. Manchester: 260 Deansgate, 3; telephone, Blackfriars 4412 and Deansgate 3595. Glasgow: 26B Renfield Street, C.2; telephone, Central 1265

© Iliffe & Sons Ltd. 1960. Permission in writing from the Editor must be obtained before letterpress or illustrations are reproduced from this journal. Brief abstracts or comments are allowed provided acknowledgment to the journal is given

THE ROYAL FINE ART COMMISSION

THE sixteenth report* of the Royal Fine Art Commission has been published at a time when it has been subjected to more severe criticism than at any time in its history. Its conduct in the Piccadilly Circus case when, under the pressure of professional and public opinion, it belatedly substituted an anathema for its previous blessing is certainly indefensible. It is only worth while having a Royal Fine Art Commission at all if it stands out as an arbiter of public taste, and a leader of opinion and not, as it sometimes seems, a panic-stricken endorser of other peoples' curses.

But, Piccadilly Circus and the Staines bridge affair should not blind us to the very useful work the commission is doing. They are simply reminders that the commission is overworked and understaffed. However able and devoted the individual members may be, they can only produce worthwhile decisions if they are fully informed of all the facts of each individual case and have time to consider their verdict.

Under present conditions it is impossible to guarantee either of these things. The secretary, even with the help of the new deputy, has virtually no staff to undertake the necessary preparatory work to present each case fully and understandably to the commission; and the number of cases is too many for the limited time available.

It is clear that a thorough reorganization is needed. This will mean a considerable increase in professional staff (which certainly does not seem to be obeying Parkinson's Law) and it may be desirable, in addition, to restrict the number of cases dealt with to those of major public interest and possibly to enlarge the commission by the appointment of regional panels.

The importance of the commission's work is evident from a mere catalogue of its major preoccupations: nuclear power stations, intrusions into National Parks, over-development of town centres and the possibility of redeveloping the obsolescent inner cores of towns to relieve the pressure on the centres and the surrounding countryside, the need for comprehensive planning on a wide scale supplemented by master plans in three dimensions, the siting of high buildings, the design of motorways and the need for architects and landscape architects to be associated with them, the design of new bridges, the continuing clutter of street furniture, a sympathetic attitude to old buildings of merit and the encouragement of higher standards of design in new buildings.

It is obvious how vitally important the work of the commission is in its dual role of public watchdog and encourager-in-chief. It is a most difficult and thankless task and the Government should give the fullest support in staff and organization to those public spirited enough to undertake it.

*Cmnd. 909. H.M.S.O., 1s 3d.

EVENTS AND COMMENTS

LOOKING BACK ON 1959
(Continued)

My remarks on June should have included the following: The competition organized by the *Sunday Times*, for an extension to the National Gallery, or what is known as the Hampton site, caused a good deal of comment in the Press, and the exhibition drew crowds at the Building Centre. I. H. Marshall, who shared with R. P. Marshall a prize of £500 in this competition, was for a time on the staff of the A. & B.N. The grand old man of architects, Sir Ninian Comper, celebrated his 95th birthday.

JULY

The printing strike made us all realize that it is quite easy to get along without the printed word, and very much more peacefully. July is not usually one of the more active architectural months and looking back without files the exhibition of Chinese architecture at the R.I.B.A. and Bill Spragg's retirement are the only two events that stand out. The Chinese exhibition was divided into historical and modern sections; the former was fascinating and the latter very dreary. Keen friends of China reproved us for our lack of enthusiasm for the contemporary work saying that it was all very wonderful. The champagne party held at 66 Portland Place after the farewell meeting to Bill Spragg was a remarkable affair and the building has seldom, if ever, gone so gay.

AUGUST

The announcement that Mr. Richard Llewelyn Davies would succeed retiring Professor H. O. Corfiato at the Bartlett School of Architecture in October, 1960, was well received. This appointment completed the major changes in the leaders of architectural education. If everyone was pleased with this news they were equally displeased with the news about the site of the old Queen's Hall, which we all thought was being preserved for a medium-sized concert hall. However, we awoke one morning to find that the site had been let to the highest bidder, the Laing Development Corporation for a building to contain offices, shops, an hotel and possibly a students' hostel. The architects for the corporation are Sir John Burnet, Tait & Partners. Almost at the same time we heard that the site of the Stag Brewery at Victoria had been sold for development. London was changing without our permission and we were cross. A row brewed up during the month over the preservation of some fine trees on an island in the Thames at Richmond. Experts for and against the preservers disagreed. Needless to say the Richmond Corporation was for cutting the trees down and if it had not been for the vigilance of the Richmond Society no doubt the trees would have disappeared long ago. As it was the row was loud enough to make the corporation hesitate and order a public inquiry. Has anything happened since then? The B.B.C., after a good deal of thought, announced "Building Matters", a programme for everyone interested in building, to be put out weekly on Network Three. This news created quite a stir and everyone wondered how it would turn out. The death of Mr. H. S. Goodhart-Rendel removed one of the last architectural "swells", and even if some people did not like his architecture they envied his remarkable versatility in the arts.

SEPTEMBER

The British Motor Corporation introduced its baby cars and everyone felt that at last we had something which would compete with the various continental makes in performance and looks. Their size gave hope for the future as London traffic thickened to a jelly after the holidays. Pilkingtons and the "Glass Age" committee produced their idea for coping with traffic in "Motopia", a rigidly gridded imaginary town near Egham, with all the roads running on top of the buildings. On the whole, critics were agreed that this was not one of the committee's best ideas, but the scheme was illustrated in the *Architectural Forum*, an honour not accorded to many British projects. A handsome arch at Stroud, Gloucestershire, put up as a memorial to William Wilberforce and the successful outcome of his campaign to abolish slavery, was narrowly saved from destruction round about the two-hundredth anniversary of his birth. The horrid practice of advertising on litter bins was in the news. Free bins were, and still are, being offered to local authorities by firms who sell advertising space on them. This practice was soundly condemned, as bad for the street scene, in this column. The very next week the Minister of Housing, Mr. Henry Brooke, was reported to be encouraging the scheme. The fact that he suggested that the advertisments should be no more than three inches square and inside the bin was beside the point. The R.I.B.A./*Ideal Home* magazine Small House Competition drawings were shown to several thousand people at the Building Centre. Allowing for the presence of several hundred respectable little houses in the show, and a number of very good ones, the exhibition was remarkable for the low standard of some of the designs signed by persons with the letters A.R.I.B.A. after their names. The conditions for the competition for the Roman Catholic Cathedral at Liverpool were published, but in spite of the size of the job they did not cause much of a stir. The news leaked out during the month that once again Great Britain was not to be represented at the Milan Triennale. The C.o.I.D. had tried to obtain Government support and failed and had then tried industry with similar results. A burst of anger in the technical press was echoed in some of the more enlightened national papers, but the Government was already thinking about the election and nothing happened.

OCTOBER

The goings on before, during and after the General Election put architecture in the shade during early October and all but killed the publicity for the New Towns Exhibition, held at Burlington House. This was a pity for it was an interesting show although somewhat overcrowded. It struck me at the time as being more of a recruiting drive to attract industry than a sober record of 10 years' work. No doubt it was intended to be both. An exhibition of modern Yugoslav architecture at the Building Centre showed us that the pavilion at the Brussels Exhibition was not just a flash in the pan, but came from a strong school of contemporary architecture, having roots in the early thirties. Many people were surprised to find that Yugoslav architects look so very much to the West for their inspiration. A Swiss fortnight in London, while failing to persuade the British public of the difference between

Gruyere and Emmentaler cheese, made us all conscious of that charming country and its industrious inhabitants. The exhibition of Swiss industrial architecture at the R.I.B.A. did not do the subject justice. A Noise Abatement Society was formed and the A. & B.N. was invited to join. Even before the society met there appeared to be differences about objectionable noise. Some people did not like barrel organs and street cries, while others thought that noisy exhausts were the breath of life. The whole thing, it seems, is now to be considered at a much higher level.

NOVEMBER

The B.B.C. programme "Building Matters" had by now had a chance to show itself, the main problem being to find anyone who had heard it. Opinion, while grateful for any building programme, agreed that it was really a television subject. The method of presentation as short talks by experts was thought to be unsuccessful if only because so many of the experts could not talk. More discussion would have been welcomed, with more continuity. These criticisms found their way to the B.B.C., and more discussions are now being included, but many people think that the programme cannot succeed on sound radio unless more of a family atmosphere is brought into it. A bigger and better Building Exhibition at Olympia gave us all sore feet for two of the weeks in the month. The exhibition was so large that some of us wondered whether it had not overreached itself. Nevertheless it seemed to be immensely successful. It is perhaps fortunate for the promoters that the actual benefit to the industry of such a show cannot readily be assessed in pounds, shillings and pence. A new G.P.O. coin box telephone appeared and some were installed in Bristol. In this review last year I commented upon a new G.P.O. telephone kiosk design. I have not yet seen one. Perhaps in my review of 1960 I shall be able to record that I have seen a new kiosk fitted with a new coin box. The row over the proposed development of the Monico site in Piccadilly Circus having simmered for sometime boiled over. Among many angry people Lord Conesford claimed to be the angriest. As the official inquiry set up by the M.o.H.L.G. takes its course no one seems to be doing very well and the outcome is very much in doubt. It seems likely, however, that public opinion will demand greater safeguards in the future. And that will be fun for those who have to draw them up.

DECEMBER

The best news of the month was that the Minister of Education announced that there would, after all, be a British exhibit at the Milan Triennale. The Government, impressed by the strength of informed opinion, had given way. A small school is to be built and equipped at the exhibition and it is to be designed by the architect to the Nottinghamshire County Council. Let us hope that this means that in future years we shall always be represented at this very important international shop window of architecture and industrial design. Christmas began even earlier than usual: in fact it occupied almost the whole month. Mr. Marples, the Minister of Transport, helped the traffic along no end with his pink zone, but even daily towing away to Kentish Town did not deter some of the hard crust of all-day parkers. The month was remarkable for its high winds and rain, but in London, at any rate, the discomforts were cheerfully borne as payment for the wonderful summer, which has hardly been mentioned in this review.

ABNER

ROYAL GOLD MEDALLIST, 1960

Her Majesty the Queen, on the recommendation of the R.I.B.A., has awarded the Royal Gold Medal for Architecture, 1960, to Professor Pier Luigi Nervi, Italy. This is the third occasion on which the medal has been awarded to an Italian, and the first time it has been awarded to an engineering contractor.

Pier Luigi Nervi was born in 1891 at Sondrio. In 1913 he graduated as an engineer from Bologna University and joined a firm of concrete contractors—Societa per Construzioni Cementizie—in Bologna. He returned to this firm after war service in the Engineers and was designer and chief engineer until 1923 when he set up his own firm.

He has always been intensely interested in the potentialities of concrete and has used and developed this material extensively for his buildings. One of his earliest works in concrete was the Stadium in Florence, noted for its curved cantilever canopy and built in 1932 as a result of a competition held in 1927. In 1935 he was commissioned to build two hangars for the Italian Air Force, and the whole structure was cast in situ; later, for further hangars, he used a similar design but entirely pre-cast construction. In 1943 came his first experiments with ferro-cement, which he used for units for the roof of the Turin Exhibition Hall in 1949.

The years 1949-51 were very active with the building of the reinforced concrete structures for a tobacco warehouse in Bologna, 1949; the Chianciano Baths, 1949; the State salt warehouse, 1950; Kursaal at Ostia, 1950; and Gatti wool factory, 1951.

Nervi has also been concerned with the design of bridges. In 1936 he designed the viaduct over the Biedano gorge, and in 1939 another viaduct. In 1951, in association with Professor Ing. Carlo Cestelli-Guidi, he designed the bridge over the Arno at Sasso-Marconi.

One of his most striking projects was that produced in 1953 with his son for the new Sports Palace in Vienna, but which did not win the competition.

He is, perhaps, most widely known to the public in connection with the UNESCO building in Paris, on which he collaborated with two architects, Marcel Breuer and Bernard Zehrfuss. He has also been concerned in association with other designers with the Pirelli Tower, Milan, 1955-58, and the Palazzetto dello Sport, Rome, designed in 1957 for the 1960 Olympic Games.

Professor Nervi is Professor of the Technology and Technique of Construction, Faculty of Architecture, University of Rome. His honorary degrees and distinctions include Hon. F.A.I.A., 1956; Hon. Member American Academy—Institute of Arts and Letters, 1957; Foreign Member of the Royal Academy of Fine Arts, Stockholm, 1957.

His publications include: "Arte o Scienza del Costruire", 1945; "El Linguaje Arquitectonico", 1952; "Costruire Correttamente", 1954; and he has also contributed various articles on architecture to Italian, French, English and American technical journals.

Professor Nervi is married and has four sons.

Three of his buildings for the Olympic Games, 1960, are illustrated on pages 9-14.

Perspective view of the proposed development

MONICO SITE INQUIRY—3

"Have-A-Go" System—and Civic Trust Criticized

Previous reports on the Monico site were published in the A. & B.N. on December 23 and 30

AT the beginning of the fourth day of the Inquiry, before Mr. C. D. Buchanan, B.SC., A.M.I.C.E., A.R.I.B.A., M.T.P.I., Sir Milner Holland, Q.C., appearing for Island (Piccadilly) Development Ltd. and Legal and General Assurance Society, questioned Mr. Hubert Bennett, the L.C.C. architect, to establish the course of events leading up to the present proposal.

A scheme submitted in December, 1957, by the developers was rejected by the council on January 10, 1958, on the grounds of excessive plot ratio and unsatisfactory massing and architectural treatment. Thereafter, there were continuous discussions between the applicants, Mr. Bennett and the council's officers. The applicants' scheme was never intended, Sir Milner said, to be anything more than a sketch scheme; and the council's officers, in a most helpful way, indicated to the applicants suggestions for development of the site. A sketch elevation of a building in a cruciform shape was made with the south elevation of the tower block covered wholly with a large advertisement panel. The sketch also showed a large advertisement panel carried on the east side, the elevation to Shaftesbury Avenue. Mr. Bennett said that these sketch plans were worked out by his department in order to check the plot ratio and in order to keep the height of the building down to the wishes of the L.C.C. committee. The sketch elevations were produced in February, 1958. Mr. Booth was appointed in March.

Elevations and Advertisements

Cross-examined by Mr. Reginald Bell, appearing for the Westminster City Council, Mr. Hubert Bennett agreed that if the scheme had not been called in by the Minister, the L.C.C. would have approved the elevations in the form in which they were called in. He agreed that one of the provisions in the council's informative letter of July 10 was intended to make the elevations in the form in which they were passed quite unchangeable.

Mr. Bell said that the Westminster City Council were in this difficulty, that no application had yet been made for advertisements. Mr. Bennett felt that any part of the building designed for advertisements could only be detailed when the views of the Westminster authority had been given in respect of any variations in the placing of signs on the building.

The Inspector, Mr. Buchanan, suggested that if the Minister decided to approve the building in the form submitted, "might he not be committed to a view of the amount of advertisement space on the front panel?" Mr. Bell thought that the Minister would be committed to the view that it was quite proper for such a panel to be provided, but not how much of the panel should be occupied by advertisements.

Answering another question by the Inspector, Mr. Bell said he was in difficulty about helping because no scheme for covering the south panel with advertisements had been submitted and therefore there was no application on which the Westminster City Council could express a view.

"Whodunnit?"

Mr. Elwyn Jones, Q.C. (appearing for the Civic Trust), suggested that before Mr. Bennett gave his evidence, the inquiry had been something in the nature of a "Whodunit?". He asked whether Mr. Bennett could think of any precedent in which the L.C.C. architects' department had played so active a part in the design and development of a proposed building such as this one. Mr. Bennett replied that in respect of all the planning applications that are received by the council for central area development, it was almost an impossibility for a plan to be prepared, firm in respect of floor area, height and daylighting factors, without considerable assistance from the planning division.

Mr. Bennett agreed that he would have welcomed the assistance of an architect of top quality in the case of a building of this great national importance, but he disagreed to the suggestion of Mr. Jones that, as the parent of the present scheme, he had not got the advantage that normally fell to him of looking at it and saying: "And how does this fit into the redevelopment of the Circus as a whole? What is its quality as a building in itself?"

Profits from the Development

Mr. Jones suggested that the trouble in this particular case was that the developer was trying to get too much out of the site. He said he would call in a witness who had calculated that the rental from the shops, restaurant and offices would bring in about £230,000 a year. The same witness would say that the income from the 18,000 sq ft of advertisement hoarding would be about £360,000 a year. Mr. Jones suggested that the cost of the construction could be estimated at £1½ million and that the value of the site was about £3 million. His witness, he said, was a very expert valuer who calculated the profit to the developer from the proposed building would be something like £2,419,000.

"If these figures are approximately correct", said Mr. Jones, "it means that it would be reasonable to ask these developers to be a little less ambitious (financially speaking) about what they hoped to derive from this historic site."

Mr. Jones later suggested that the proposed building would clash violently with the County Fire Office building. Mr. Bennett did not agree to that; he thought that it would be a contrast. Mr. Bennett agreed that the building had significance coming up from Regent Street; it would not overshadow adjoining areas; a lower building would have considerable difficulties as regards daylighting. Commenting on the Royal Fine Art Commission's view that the scheme needed "radical reconstruction and a more imaginative approach", he could not understand why the Commission's views, expressed in their letter of December 15, 1959, had not been given earlier. Mr. Bennett did not think the Royal Fine Art Commission's fresh criticisms were valid at all.

Mr. Elwyn Jones said he would be calling Sir William Holford and Mr. Thomas Sharp and others, who took the view that this building was incompatible with comprehensive town planning; Mr. Bennett did not share their view.

Questioned on how the proposal fitted into the L.C.C. advisory scheme, Mr. Bennett said that the building indicated on the advisory model did not, in itself, provide a complete element on the north side of the Circus; it was only a model of a building on the site. Today the proposal was a complete element in itself. It complied strictly with the plot ratio in respect of the comprehensive scheme; it was strictly in accordance with the office user; the scheme complied with daylighting requirements; provision for car parking was provided; arrangements for the pedestrian segregation had been safeguarded; in regard to the height and size of the building, the Ministry of Works had no objection in relation to St. James's Park and the Palace. "With regard to the Royal Fine Art Commission, we had their approval", Mr. Bennett said. "I am satisfied that this scheme could form a satisfactory part of the development."

Comprehensive Development No Guarantee of Good Architecture

Answering questions about making Piccadilly an area of comprehensive development, Mr. Bennett said the reason why an application had not been made in the past must surely be because the area was not one that would gain by being so defined. He thought the point had been sufficiently understood that comprehensive development areas had nothing whatever to do with architecture and they did not in any way guarantee that the architecture would be any better in those areas than anywhere else. He thought that the fate of pedestrians could be looked to quite adequately without the comprehensive development procedure and he did not see any advantage in making Piccadilly an area of comprehensive development. He did not agree that greater control over developers had shown itself in areas that had already been so designated and developed.

The Fifth Day of the Inquiry

When the inquiry reopened on Tuesday, December 22, Mr. Hubert Bennett was cross-examined by Mr. Noel Picarda, appearing for the City of Westminster Liberal Association, and Mr. Kenneth Baynes, appearing for the Anti-Ugly Action Society of The Royal College of Art.

Answering a question from Mr. Baynes whether the building would be improved by increasing its height, Mr. Bennett said he considered in architectural terms that it was always easier to design anything if you take the lid off. "Architect planners know quite well", he said, "that if we take height restrictions off building development in London we can achieve much more, not only better architectural results, but we can achieve easier planning results on larger sites, but there are people who would strongly resist. I am quite sure that the thinking of the planning committee of the last two years has been in the region of a moderate height on this site. What the figure may be in the next year or two, in view of the large number of applications that have been received in the last twelve months for much higher buildings in the central area, might lead to a different answer in the future."

Answering a question about the advantages of comprehensive development, Mr. Bennett said that in such areas you could transfer the whole of the street pattern to a new design and new layout; you could remove non-conforming users; you could reallocate your residential zones; you could create open spaces which never existed before; you could bring in educational uses as part of the environment. But he did not think Piccadilly was an area where those things applied.

Inspector on the "Have-A-Go" System

The Inspector said that most of his points had been covered in the long cross examination of Mr. Bennett, but he wondered whether Mr. Bennett could help him to understand the chances for architectural design in these days.

"I dare say a lot of people", the Inspector said, "always had the idea that a fine building was the creation of a single mind in the same way as a painting. Anyone having that view, I dare say, has had a bit of a shock in the last few days." The Inspector suggested that the design now before the Minister started off as a vision which was totally unacceptable to the council. It had reached its present shape by a complicated process of consultation, discussion and suggestion; and at a later stage another architect was brought in for the treatment of the elevation. "This process was rather aptly described yesterday", said the Inspector, "as the 'Have-A-Go' System." The developer has a go, not in any great detail; it then goes to the planning authority; they have a go. It goes back to the developer; he has a go. It may go to somebody else. "I think what may be bothering people", the Inspector said, "is what is the chance of a really fine design emerging from that kind of process. Is that sort of process absolutely inescapable today in this large-scale development?"

Mr. Bennett thought he could explain the point in this way. The London County Council would be receiving about 14½ thousand planning applications in its own administrative area this year [1959]. He felt sure that in his planning department they would come to the conclusion that a very small percentage of the architectural profession understood the implications of designing a building in a central area in a way in which it is part of a comprehensive development. He included among those people many of the well-known persons in the architectural profession. "We find", Mr. Bennett said, "it is only just a small handful of professional people who understand the whole of these implications, who can see their way through them and obtain a good architectural answer in the long run." A great many people who are perfectly happy architecturally on an isolated site or are outside the environment of the central area, or are dealing with something smaller, can do their work in a very attractive way; but immediately their client's proposals go outside that,

MONICO SITE INQUIRY

all the planning implications that surround their site and the amount of information which is known in the planning department, unknown to them, have to be stitched into their proposal.

"About 40 per cent of the applications that are received, either from architects, surveyors, engineers, or estate agents, wherever they come from, are only of mediocre quality in the terms of the kind of result we are trying to get at a later stage," said Mr. Bennett.

Mr. Bennett agreed there was being bred a race of architects who could see their way through this. There were a number of architects who somehow automatically had the right approach to every side of the problem and still retained the architectural quality of their scheme. But Mr. Bennett thought there was obviously a large hard core of professional people of all types who were still planning buildings with a pre-war approach, or the building act approach, and everything prior to planning.

Streets Slewing Off

A point which concerned the Inspector was that although the apex of the triangular Monico site was to be cut off, it was still virtually triangular in shape as it fronts the Circus. He wondered whether Mr. Bennett was in any way disturbed by the fact that at the end of this frontage there would be streets slewing off at right angles. Mr. Bennett replied that it was felt the acceptance of the position of Shaftesbury Avenue into the Circus must remain, but some possible improvement in the intersection of Great Windmill Street and Denman Street and Shaftesbury Avenue required to be resolved at a later stage with further development in Shaftesbury Avenue. The Inspector said he was really concerned with the presentation of the frontage of this northern redevelopment to Piccadilly Circus and whether there was any disadvantage from the fact that the frontage of the building would be slewed off or whether it could be extended towards the east in any way so as to give a longer straight enclosing façade. Mr. Bennett replied that that had been considered, but not pursued. The lines of improvement were finalized by the committee some three years ago.

"The new and enlarged Piccadilly Circus then is really a traffic improvement," said the Inspector. "Yes", Mr. Bennett replied, "it is a traffic improvement in its own right." Mr. Bennett continued that it had always been considered from the engineer's point of view that the first stage traffic improvement in Piccadilly Circus, as incorporated in the plan, would be on the north side. The Inspector said it was fairly clear that the first stage was taking off the corner, that the second stage was removing the London Pavilion, the third stage was the creation of a big roundabout, whereby Jermyn Street would be thrown into the circulatory system. Mr. Bennett agreed that the long-term traffic proposal was to create a large roundabout.

Mr. Bennett agreed with the Inspector that Piccadilly Circus was really to continue to be a heavy traffic intersection. The implications of engineering possibilities, fly-overs, and so on had all been reported upon and discussed with the Ministry of Transport. Discussing how the shape and height of the tower block was arrived at, Mr. Bennett agreed with the Inspector that the tower on the site was a consequence of the operation of the plot ratio. A perimeter development on the scale of Regent Street gave a rather terrible architectural answer because of the shape of the site, the treatment of corners and the limiting effect of daylighting in the narrow side streets. Given the fact that there was a height limitation in everybody's mind on this particular site, the problem was how to keep the height of the building down and how to keep the building as elegant as possible. If you increased the height of the podium by another floor you ran into daylight infringement in the narrow streets at the back. The podium height could not be increased.

L.C.C. Were Prepared to Agree to Schemes

Had it not been for the delay imposed by the need to get a Section 25 agreement, Mr. Bennett said, the council would have approved the application as revised by the submission of May, 1959, together with all the conditions attached to them. The council would have approved the application without the elevational revisions which Mr. Booth had prepared just for the inquiry.

Redevelopment an Accelerating Process

On the question of comprehensive redevelopment the Inspector said at one moment he was rather depressed by the difficulties Mr. Bennett had outlined about getting one block to line up with another, having regard to the fact that there might be a five-year interval between the two; the next, he found himself quite excited by Mr. Bennett's description of the scheme and the extent of redevelopment, particularly applications which were now brewing up. He mentioned particularly the redevelopment proposal in the offing of the whole of Shaftesbury Avenue. He thought the lesson of recent years might be that redevelopment was an accelerating process. "Someone sees Mr. Jones' plot being redeveloped and thinks: 'I have got to keep pace with him', and so it goes on", he said. He wondered whether Mr. Bennett was not being a little pessimistic as to the chances of getting on with all the Piccadilly Circus redevelopment with one scheme spread over a good deal shorter period of time. Mr. Bennett replied that in the council's views planning for 15 to 20 years would be the right conclusion.

The Inspector said if he had heard Sir Howard Robertson correctly, the western side of Piccadilly Circus (that is the Swan & Edgar side) was, in his view, all getting pretty obsolete now. But, said the Inspector, the council on their side had regarded that as irremovable. Mr. Bennett said that they had heard no idea of removing the County Fire Office or the Quadrant, Piccadilly Hotel, or Swan & Edgars. They had no proposal whatsoever. It had been regarded as absolutely fixed and irremovable in the council scheme.

Answering a question of the Inspector in regard to pedestrian segregation, Mr. Bennett said, you would go below ground from every site around the Circus in order to cross the Circus; but the means of crossing Shaftesbury Avenue farther north than it is at present would still have to be permissible. He had not rejected the possibilities of first-floor pedestrian ways on the east side of the Circus. The general policy was that various circumstances forced them to go underground at intersections, but provided there were big enough areas to develop between intersections, on the hinterland, they could go up above.

Witness for Design Policy Called

Before Mr. Stewart Brown closed the case of the London County Council, Mr. Elwyn Jones suggested, in view of the very great importance of the planning considerations in the case, it would have been helpful to the Inspector and to the Minister to get the views of the planning officer, Mr. Lane. The Inspector replied that, having heard Mr. Bennett's evidence in full, he did not wish to press the point of calling the senior planning officer. The Inspector continued: "I will say that Mr. Bennett's evidence has helped me very considerably to understand the way in which the design of this building has evolved—I think that would be a suitable term—but I am bound to say I still feel that the purpose of the inquiry will be better served if we could have a witness who could speak for the applicants on what I might call the design policy of the building . . . if I could give you one example of a gap that still needs filling: this achievement of some degree of separation between pedestrians and vehicles now seems to be boiling up as one of the most urgent and difficult questions in urban planning today. We have heard that the L.C.C. prepared the

scheme which achieved the separation to some degree, and the officers were authorized to discuss it with the developers. We have heard that when they put it to the developers in this case, it was completely rejected. Very brief reasons had been given for the rejection, but I think this is a matter of considerable public concern of which I shall need to report to the Minister as fully as I possibly can, and I feel reluctant to take this rejection of that principle at second-hand, as it were, from Mr. Bennett. I feel I would like to hear from the developer's side how the matter was put to them and what their reactions were."

Continuing, the Inspector said: "As I see it, the situation was given a podium, the rest of the design follows, and there was not much alternative to the top part. I should like to hear a bit more about the podium from the developer's end. What were the criteria that produced a three-storey podium over the whole site. Are there any possibilities of doing it in a different way?" He was not clear whether at a certain stage in the evolution of this design a decision was reached. "We must have a certain area of advertising panels."

Mr. Crickmay, one of the two chief estate surveyors of the Legal and General Assurance Society Ltd., was called and examined by Sir Milner Holland. Sir Milner said he was sure that he was one witness who could answer many of the questions just raised by the Inspector.

Mr. Crickmay's Evidence

Mr. Crickmay, a director of Island (Piccadilly) Development Ltd., said he had attended nearly all the meetings in connection with the development of the site. In the early days of the scheme there was some consideration of having a regional garage below the Monico building, but as their plans were considerably ahead of the surrounding development it was completely impractical to come to arrangements with the other people for central car parking. There was also the question of ingress and egress. They had considered, and had agreed with their architects that the right way to develop the site was to have ground and first floors over the whole area, otherwise it meant "squashing the whole thing up". The ground and first floors were the shopping areas, and would be the most valuable letting space on the site. Upper level walkways were discussed at a number of meetings with the L.C.C. and his company did not dismiss them at all lightly. On this island site upper level walkways would lead nowhere, and they were also very mindful of what had taken place in general terms in Coventry over the two-level shopping centres, knowing that as a shopping centre it was not a successful operation.

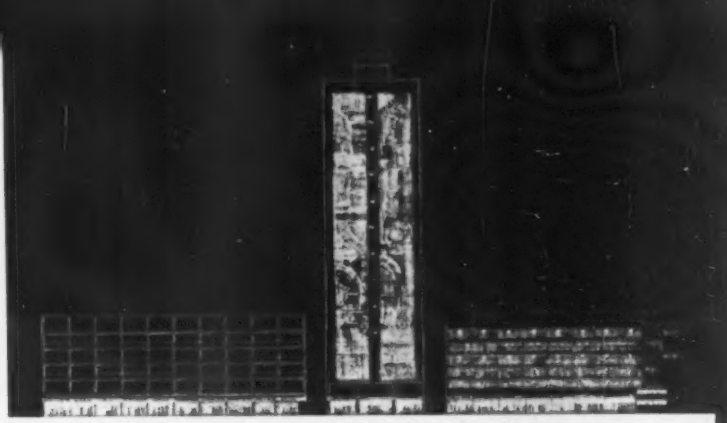
Questioned about advertisement signs, Mr. Crickmay sad he understood his company had received applications for approximately 30,000 sq ft of space. They had not actually completed the negotiations, but you could say they had been four times over-subscribed he thought. In round figures, Mr. Crickmay thought the cost of acquiring the site and erecting the building would be about £7 million.

◆ ◆ ◆

The Sixth Day of the Inquiry

On the sixth day of the inquiry, Mr. Ramsay Willis, Q.C., appearing for the architects, Cotton, Ballard & Blow, criticized the way in which the case had been conducted on behalf of the Civic Trust.

Mr. Willis, who also represents City Centre Properties Ltd., said that for all practical purposes the scheme under discussion had the approval of the body which had the statutory duty to approve or disapprove. It should also be remembered that due to the acquisition by the developers of virtually all the interests in the Monico site (instead of the rather restricted development first put forward) it was possible to consider the erection of a building, however controversial in design, which would make full use of the whole site. To that extent at least, the developers had made possible a redevelopment of this which certainly would have been impossible if it had been developed piecemeal over a period as the interests fell in.



An artist's impression of advertising on a proposed tower block of flats in the Elephant & Castle comprehensive development area

Before the campaign against this building and his architect clients started in November of this year, the only responsible criticism which had been heard was that of the Royal Fine Art Commission and this was limited to the method of displaying the advertisements—termed by the Minister in the Commons on November 17 as a somewhat minor objection.

The project was not one which burst upon an astonished and enraged world on press publication of the somewhat unfortunate photograph of the last perspective drawing in November. It had been announced in the press in October, 1958, and on March 13, 1959, the press carried photographs of the building. This was an inquiry into the planning merits of a particular form of development, said Mr. Willis, and it was not intended to be a forum for abuse or criticism. Unfortunately, as was seen through the press and wireless, a campaign had been started which contained in the criticism of the scheme offensive references to the firm of architects involved.

So anxious apparently were those continuing this campaign before the inquiry started to blacken the professional reputation of this firm, that it was stated, quite untruly, in a broadcast talk that a design consultant for the building had been appointed only by pressure of the R.F.A.C., said Mr. Willis. Sir Milner Holland had mentioned that this was entirely untrue; Mr. Booth had been consulted nearly a year before the R.F.A.C. considered the matter.

Civic Trust Criticized

Although there was a possibility of a public inquiry of this sort developing into a sort of free for all, it had been hoped that those who had a responsibility in this matter would have confined their opposition to a criticism of the design of the building and the planning of the site.

"It was certainly to be hoped", said Mr. Willis, "that with the entry at the last moment into this controversy of the Civic Trust, which was timed, coincidentally it appeared, about the same time as the *volte face* of the R.F.A.C. in this matter, that the case would have been presented, so far as the architects were concerned, in a moderate and temperate way and that my learned friend Mr. Elwyn Jones' instructions had been such that it would not have been possible for him to level criticism against the competence of this firm. One must accept regretfully that the Civic Trust, or those who were responsible for giving my learned friend instructions in this matter, desired that the campaign which was started against the architects in public should be renewed and pressed at the public inquiry."

It was remarkable that before the Civic Trust embarked upon its first public intervention in a matter of controversy involving an attack upon the architectural design of the building, Sir Howard Robertson, the only architect on the board of trustees of the Civic Trust, should not have been consulted.

"One wonders how many others of the board of

MONICO SITE INQUIRY

trustees were consulted before it was decided to launch this opposition to this development and to launch it in the way in which it has been pursued. The attack, of course, has boomeranged on the Civic Trust", commented Mr. Willis.

"No doubt it seemed quite safe to criticize the design by throwing mud at Cotton, Ballard & Blow; but of course, in doing so, they have involved the L.C.C., Mr. Bennett, and his staff, and we know that some of those who have been responsible for this campaign before the public inquiry profess to admire very much the work of the L.C.C.'s architects.

"It has been said that the design would be unacceptable because it lacked the inspiration of the hand of a top architect of high quality, but no doubt the Inspector would be able to dismiss this objection, considering the qualifications of Mr. Bennett and his team, to say nothing of Cotton, Ballard and Blow.

"I hope then at this stage" said Mr. Willis "that Mr. Elwyn Jones will be instructed to withdraw the insinuations of incompetence or unworthiness that he has been, up to now, instructed to make on behalf of the Civic Trust. These criticisms and insinuations were always unfair and prejudiced.

"If they are not withdrawn, I am going to suggest, with great respect—and with a full sense of responsibility of the body I would then seek to criticize—that it would show clearly that the Trust was allowing itself to be used, and its authority given as cover, for the continuance of the sniping campaign against this firm of architects whom I represent. That is an inauspicious start for the intervention in public debate of so distinguished a body as the Civic Trust," commented Mr. Willis.

Continuing his speech, Mr. Willis said that when Sir William Holford came to address the inquiry he would not forget how, when he had given so much of his time, skill and experience in preparing a scheme for the precincts of St. Pauls, so many of his eminent colleagues at very short notice marshalled themselves in criticism against the scheme when it came to a public inquiry [Sir Reginald Blomfield, Sir Giles Gilbert Scott, Sir Edward Maufe, Lord Mottistone and Mr. Charles Wheeler, as he then was].

There could be no doubt that in the case of a modern building in a vitally important position there was likely to be no one particular solution which would satisfy everyone.

The 66 architects who had been lobbied by Mr. Cadbury-Brown (A. & B.N. 23/12/59, p. 644) had suggested the formation of an advisory group to examine the unique function of Piccadilly Circus and to recommend, in a matter of weeks, how best it could be developed. Presumably they would expect to form at least a nucleus of this group but one was tempted to ask: Would the L.C.C. be excluded from representation, and would representatives of the developers be permitted to discuss their problems with the group? What was likely to happen if this was thrown back into the melting pot, into the hands of an advisory group of architects who, if they were nothing else, were usually people of individual and independent views. Would the building arising be a noble building, the creation (unhampered by the problems which hamper the site in our hands) of a top architect of high quality who would be allowed to have his memorial at Piccadilly Circus? It would no doubt be a noble building, but possibly nobody would build it because this was a commercial site for a commercial building. Or would it be merely a hopeless compromise of the conflicting views of a number of qualified architects trying, as every architect must do, to meet the desire of the developer who is employing him?

Mr. Ramsay Willis concluded: "If it is to be assumed that any building which rises on this site is bound to give rise to controversy, then we would ask the Minister now to take the view . . . that the solution of this problem, he is satisfied, has now reached a point where it can be approved, and that there is no justification any further for withholding his consent, which we would ask him to give."

Westminster City Council's Views

After Mr. Ramsay Willis, Mr. Reginald Bell, appearing for the Westminster City Council, made his opening speech. He said that, in the City Council's opinion, this building would fit in with the future development of Piccadilly Circus. When it had been referred to them, they had raised no objection to it in principle and as far as they were concerned, with certain points they reserved, they were at the inquiry to approve and support the applicants and to ask the Minister to decide accordingly. Commented Mr. Bell: "As this will be the first building of the new development of Piccadilly Circus, obviously it is important that it should be of a high standard; but with the L.C.C. the City Council share the view that this building will be of the right standard."

The inquiry reopens today, and will be reported in next week's issue.

NEWS

New Year Honours

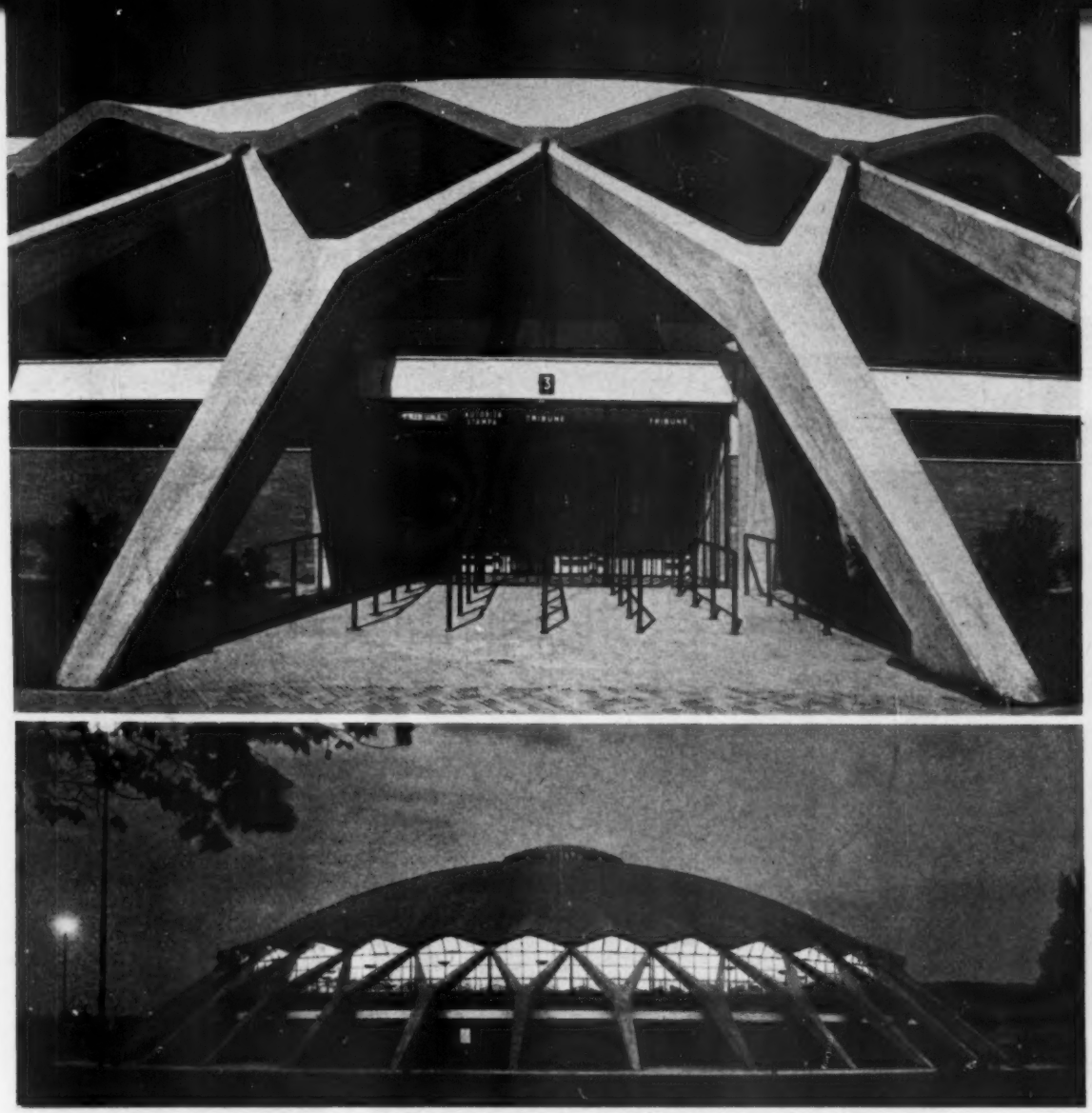
Life Peer: Sir Alfred Charles Bossom, M.P. for Maidstone, 1931-59.

C.B.: James Henderson Waddell, Under-Secretary, Ministry of Housing and Local Government.

C.B.E.: J. Betjeman, poet and author. E. G. S. Elliott, lately chief technical planner, Ministry of Housing and Local Government. H. E. Peirce, chairman, Executive Council, National Council of Building Material Producers. W. K. M. Slimmings, chairman, Development Areas Treasury Advisory Committee (Worcester Park). L. G. Vincent, Chief Architect, Stevenage Development Corporation. G. L. Wraige, Director of Maintenance Services, Ministry of Works.

O.B.E.: M. I. Davies, water engineer, Ministry of Works, North Region, Nigeria. D. J. Dunn, Director of Public Works, Cyprus. D. A. Wiles, Permanent Secretary to Ministry of Communications, Works and Housing, Barbados. T. M. Addison, Chief Executive Officer, Ministry of Works. A. L. Baker, chairman, Housing Committee, Swale Rural District Council, Kent. C. F. Fox, Assistant Director for Wales (Works), Ministry of Works. T. H. Hopkins, Technical Adviser, War Damage Commission. R. H. S. Howell, Head of Building Department, B.B.C. A. F. W. Humphrys, former Secretary, Churchill College Trust. Miss Ada May Eleanora Iredale, for services to Guildford Cathedral. D. W. Nunn, Senior Quantity Surveyor, Ministry of Housing and Local Government.

M.B.E.: H. C. Fairweather, Director, Housing and Planning, British Honduras. K. D. Oshodi, Town Planning Officer, West Region, Nigeria. R. M. T. Phillips, surveyor, Public Works Department, Basutoland. F. J. Bould, design organizer, television, B.B.C. W. McCartney, secretary, Federation of Civil Engineering Contractors (Scottish section). S. V. T. May, regional secretary, National Federation of Building Trades' Operatives, North-West Region. E. Michelmore, departmental regional director, U.K. region, Imperial War Graves Commission. T. A. Smith, official of the Amalgamated Union of Building Trade Workers. A. P. Watson, higher Technical Branch, Ministry of Works. C. J. Woodbridge, senior architect, Ministry of Works.



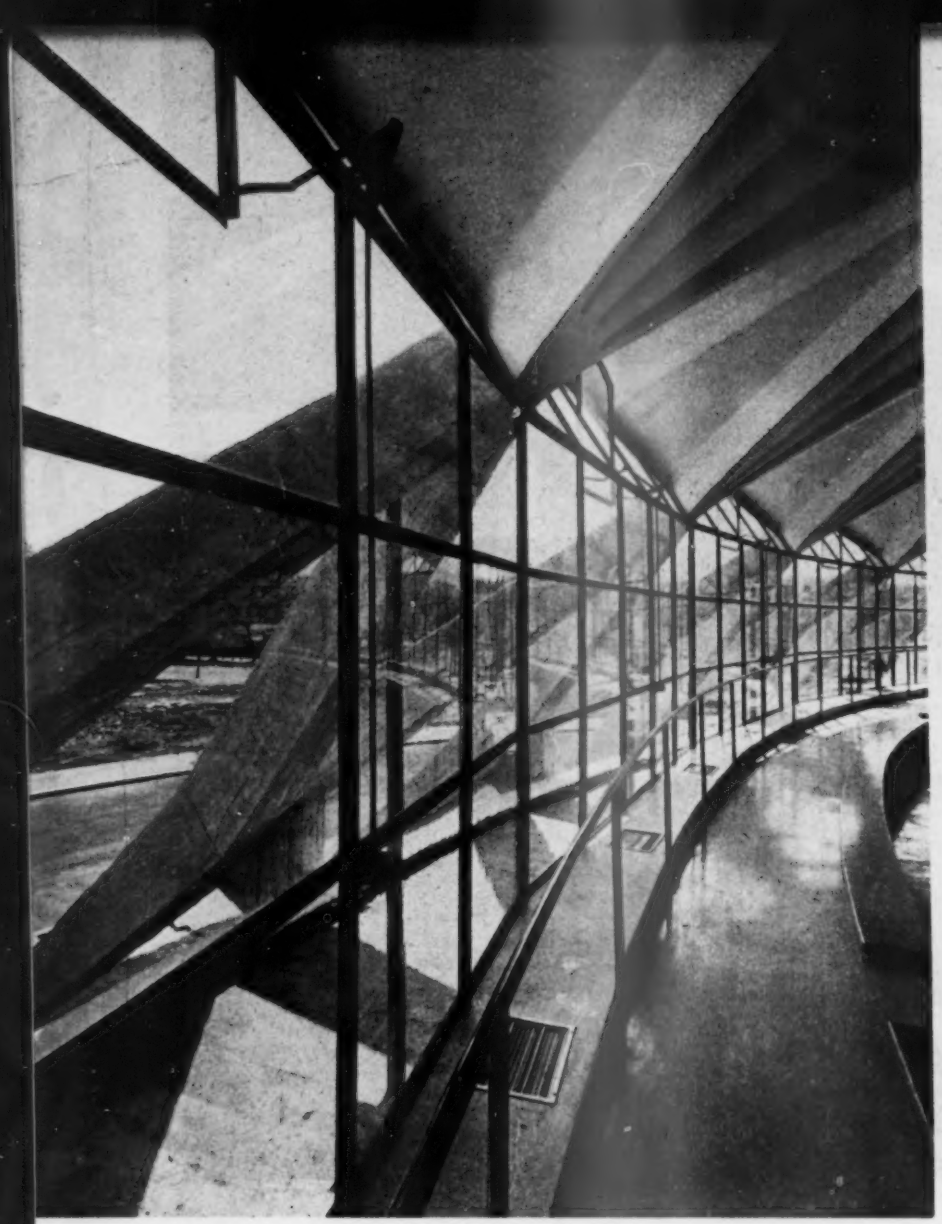
Above, the Palazzetto, the small stadium by Nervi built for the 1960 Olympics

NERVI

Olympic buildings in Rome by Pier Luigi Nervi, the 1960 R.I.B.A. Gold Medallist

IN a country as proud of its great men as Italy one is not surprised to find the hand of Professor Pier Luigi Nervi behind the designs of the three most important new buildings for the 1960 Olympics in Rome. Two of these, the Palazzetto dello Sport and the Stadio Flaminio, lie on the northern side of the capital near a newly constructed Olympic village which will remain as permanent accommodation when the games are finished. The third, the large Palazzo dello Sport is positioned on a commanding slope on the opposite side of Rome, near the buildings of Mussolini's ill-fated exhibition. Near the Palazzo lies a fourth new building, the Olympic velodrome.

The Palazzetto dello Sport is a flat-domed circular building of reinforced concrete construction. Thirty-six Y supports, leaning and supported at the fork of the Y by vertical columns, transmit the thrust of a 195ft diameter dome to a circular prestressed concrete foundation beam. The dome of the Palazzetto is its glory. Nervi has used his light-weight concrete or "ferro-cemento" in diamond- and triangular-shaped panels interlaced with gently curving beams to give an effect from below of fine tracery. To construct the dome the ferro cement trays, over 1,600 of them, each about 12in deep and with 1in sides and top reinforced with two layers of fine mesh reinforcement and layers of $\frac{1}{16}$in mild steel bars in both directions, were pre-cast on site on templates of very smooth concrete. This gave the fine finish to the soffit. These trays were then placed in position on formwork of tubular steel scaffolding and the concrete beams and structural screed poured on top. Reinforcement left projecting from the trays gives a tie between pre-cast and *in situ* concrete. The roof of the dome is waterproofed with an asphaltic composition paint, each of the

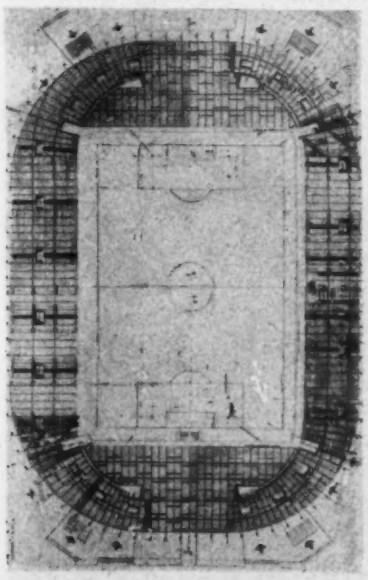


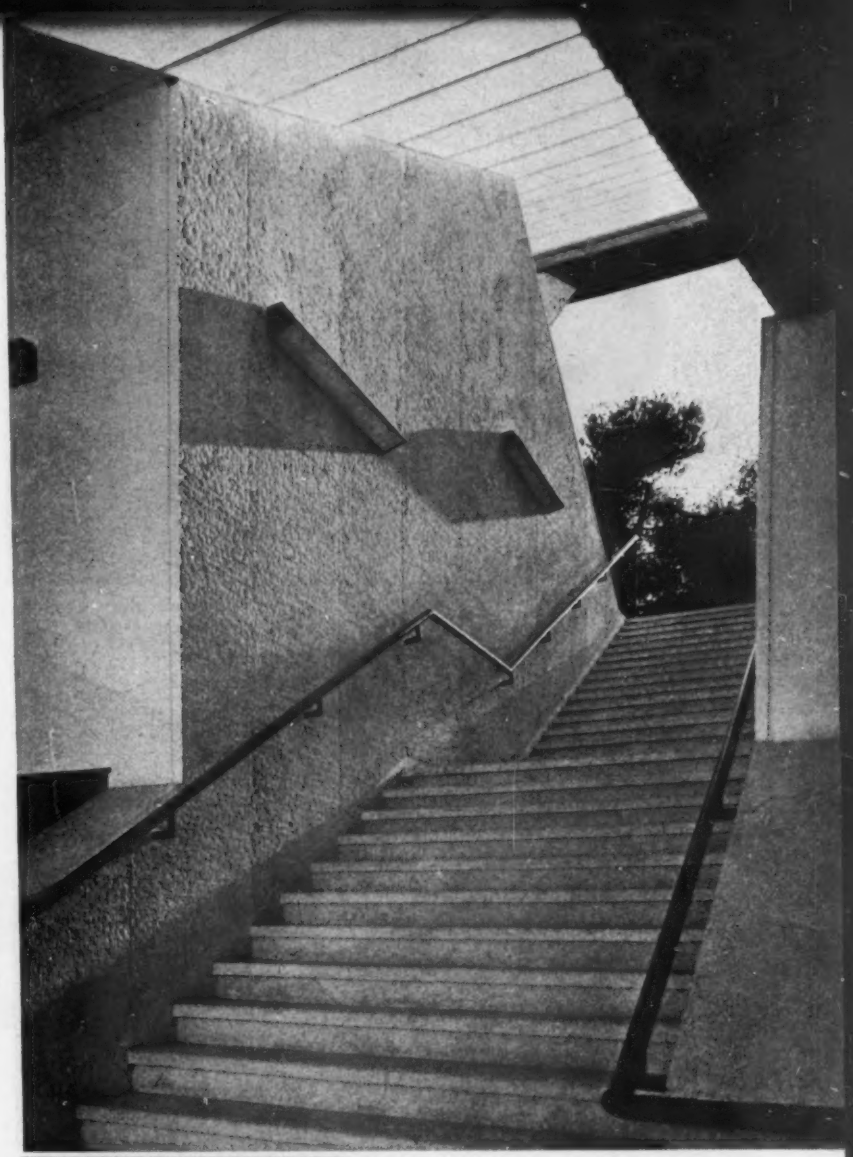
NERVI

Above left, and below, interiors of the Palazzetto, the small stadium to hold 5,000 spectators, which is to be used for basket ball, etc.

shallow valleys formed by the pie-crust edge serving as a collecting point for rainwater. The Palazzetto holds 5,000 people and cost about £150,000. It will be used for basket ball, boxing, wrestling, etc. A. Vitellozzi co-operated with Nervi in the design and the contractors were Nervi and Bartoli. The latter, the contracting firm with which Nervi is associated, has about 1,000 on its pay-roll but designs its masterpieces with a drawing office staff in Rome of two architects and ten engineers.

Near the Palazzetto stands the new Stadio Flaminio, a classic display of Nervi's curves and angles and breath-taking cantilevers. Whereas he had been commissioned to design and build the Palazzetto, Nervi's new stadium was the winning design in a competition. Cast *in situ* concrete frames, consisting of legs 15ft and 35ft high supporting a sloping beam, are spaced at intervals of just under 20ft all round the perimeter. Pre-cast concrete seat units with a smooth soffit span between these frames while a spur on the rear leg of each frame serves to carry a continuous access gallery, a mezzanine between ground level and the seats themselves. On the southern side the frames project beyond the bowl of the stadium to support a graceful canopy the full length of the stadium and 88ft wide. The rear of this canopy is cast *in situ* concrete, the front a series of light-weight pre-cast ferro cement V-beams, each with ten glazed portholes with the two-fold purpose of allowing access of light and reducing weight. Where the method of construction changes, a line of steel tubes filled with concrete transmits the weight of the canopy back to the concrete frames. Concrete finishes generally are smooth soffits to the pre-cast work and narrow timber formwork markings on the rear portion of the canopy and the frames. The stadium will hold 50,000 and beneath the seating accommodation Nervi has provided four excellent gymnasia and a swimming pool as well as cloakrooms and changing accommodation, offices, stores, etc. Nervi's son, A. Nervi,

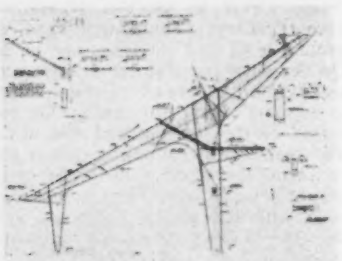




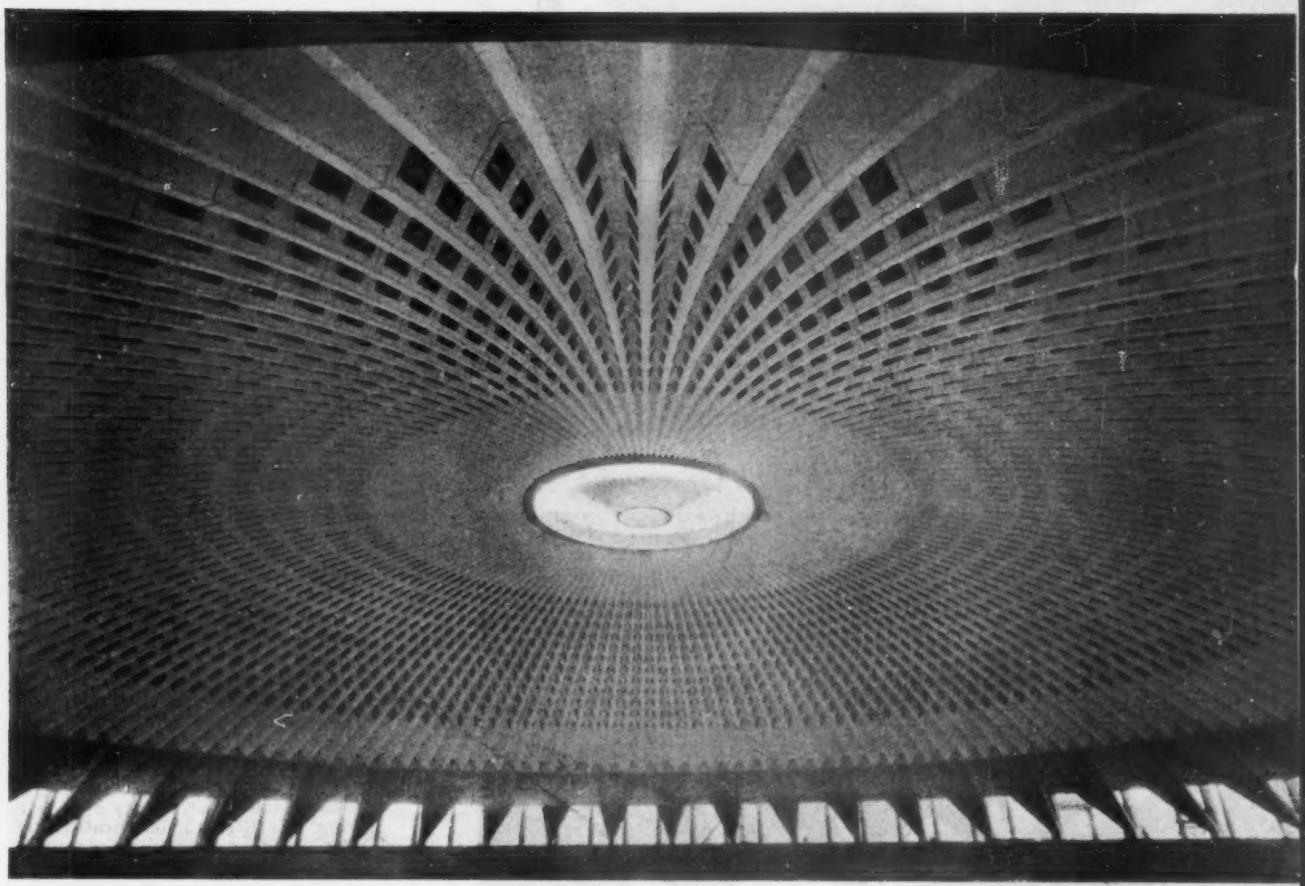
The Stadio Flaminio, above and left, to hold 50,000 spectators

co-operated in the design—the contractors were again Nervi and Bartoli. Construction was completed in 18 months and this included the demolition of a previous stadium on the site. Cost of the new stadium, about £450,000.

The Palazzo dello Sport, a 330ft diameter sports palace with accommodation for 16,000, must rank as one of the great Nervi buildings. Nervi was commissioned for the design, his firm of Nervi and Bartoli being awarded the construction contract in competition. Here again the dome, the largest in the world, is the focal point of the building. It is constructed of V-beams, springing from strong concrete buttresses and leaning at the apex of the dome into a circular beam which itself supports a 360 deg window and a thin ribbed concrete roof. Each V-beam consists of five pre-cast units of lengths varying from 29ft at the springing to 16ft at the apex. Each unit, consisting of 1in thick ferro cement sides perforated

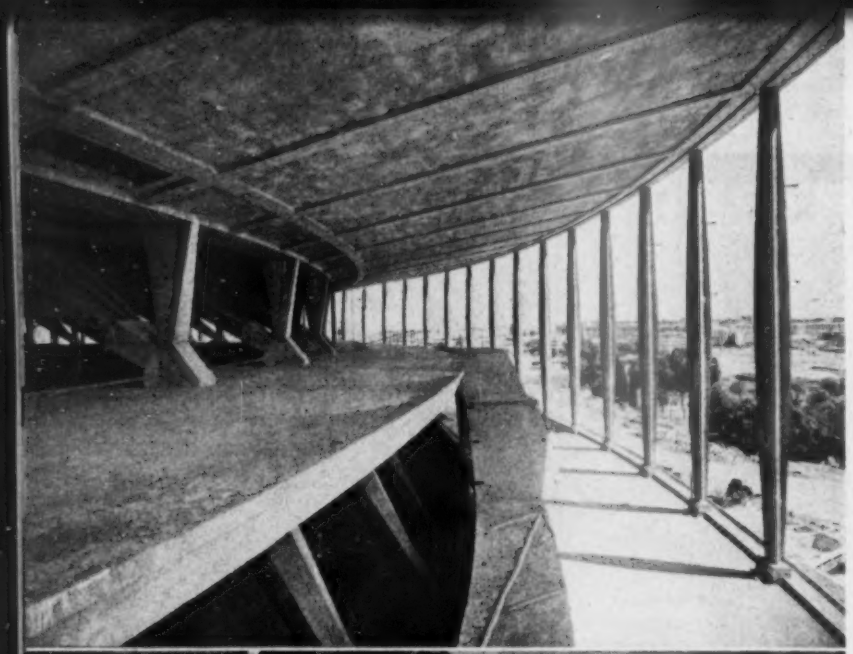


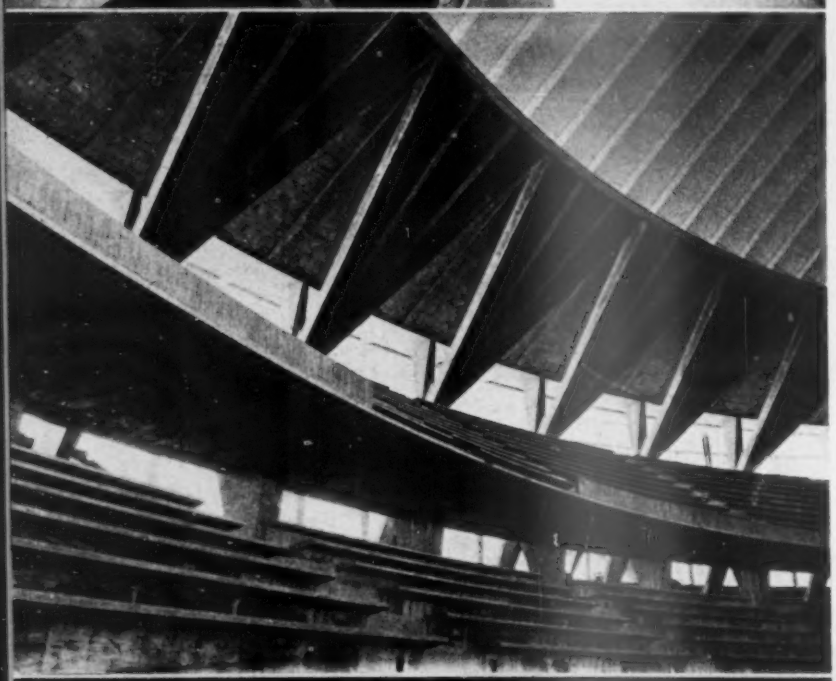
The Stadio Flaminio detail drawing of seating supports, top, the gymnasium. In the aerial view below, the small covered stadium can be seen behind the amphitheatre



NERVI

Palazzo dello Sport, to hold 16,000. The 330ft diameter dome is the largest in the world





for lightness, was constructed on the ground but a concrete filling to the valley of the V and a concrete beam uniting the apex of adjoining V's were poured when the units were in position. Acoustic boards and pre-cast slabs span across the top of the V's to provide a roof—the whole of which is covered with aluminium.

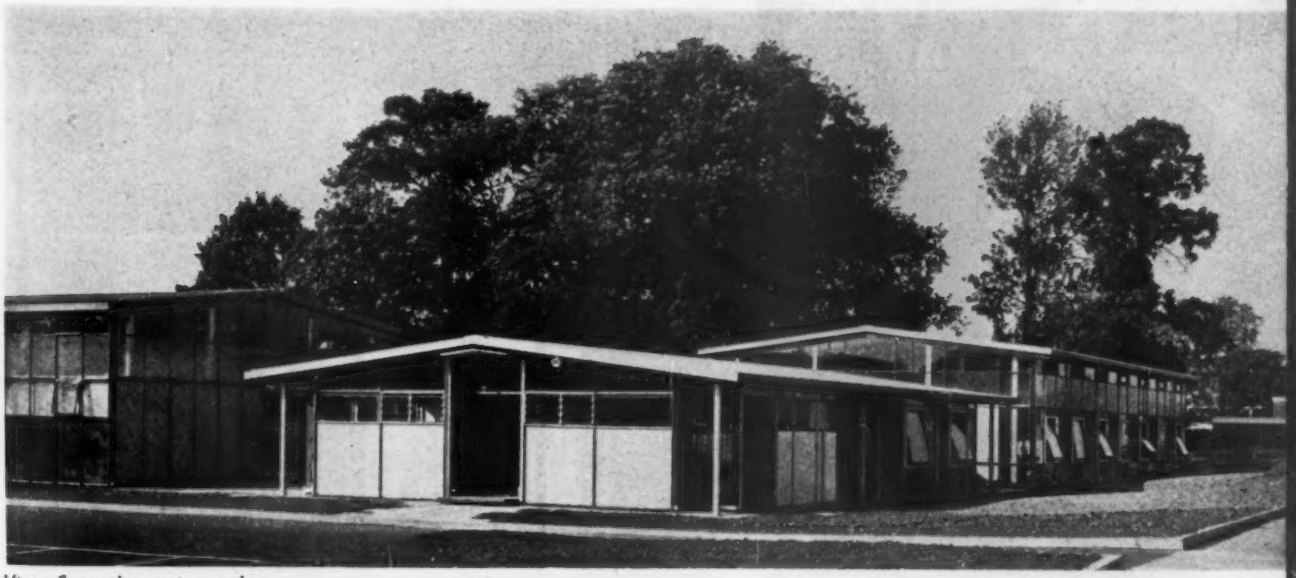
Round the foot of the dome and immediately beneath the curved soffit of the upper tier of seats Nervi has provided a gallery punctuated at regular intervals by the columns supporting the dome. These columns, heavily lined from their formwork, twist gracefully between ceiling and floor. The ceiling here, reminiscent of the Palazzetto dello Sport, is a fan tracery of smooth concrete, while at regular intervals around the circumference of the building at this level fine and delicate staircases, poised like timid animals, give access to the gallery above. The building is enclosed by a wall of glass glazed to heavily entasized "cross-section" columns.

The Palazzo includes changing accommodation, toilets, etc., and its structure was completed in 13 months. Cost of the structure, about £340,000. A. Piacentini is collaborating with Professor Nervi on architectural design.

A fourth Olympic building, not from the Nervi stable, is the velodrome, designed for hockey and cycle racing. It holds 15,000 seated and 5,000 standing and the building is interesting in that it was designed to ensure the minimum glare from the sun for the maximum number of spectators at the time of day when the Olympic events are in progress. Its track, heavily banked—there is a 37ft high slope at each end—is of a West African hardwood—dussier. The velodrome is equipped with floodlights and embraces changing accommodation, offices, etc. The winning design, in a competition with 30 entries, was by Ligini, Ortensi and Ricci of Rome. Cost, about £450,000.

NERVI

Details of the Palazzo dello Sport. The "V" beams are each made up of five pre-cast units

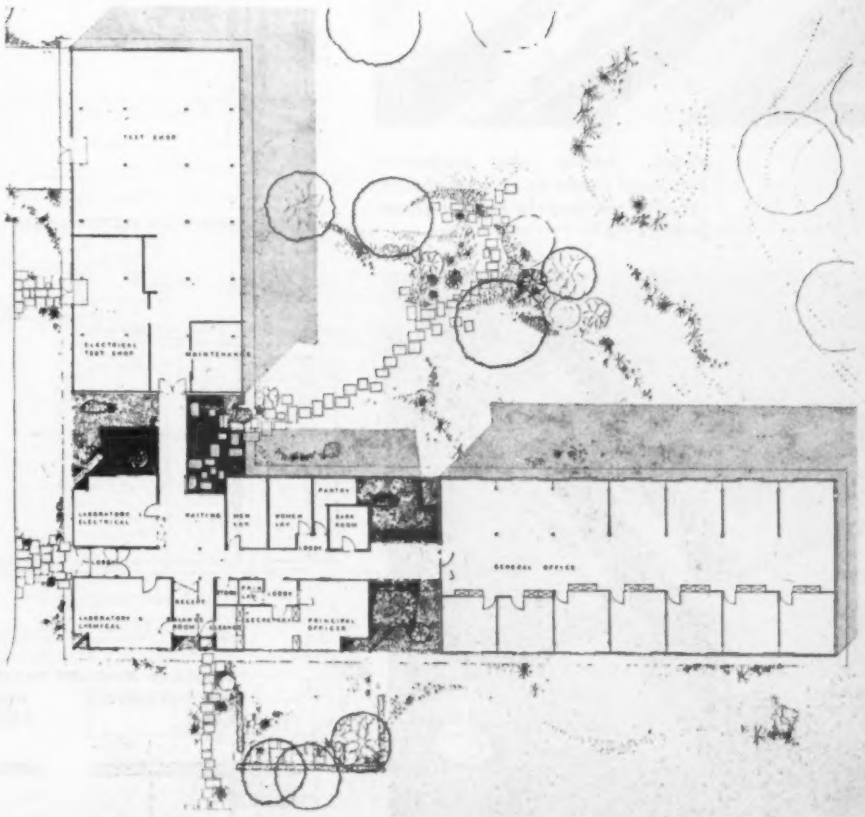


View from the main road

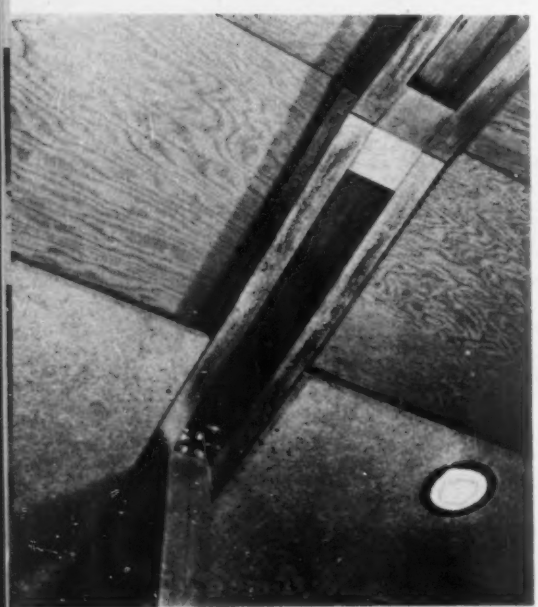
OFFICES AND LABORATORY, HEMEL HEMPSTEAD, HERTFORDSHIRE

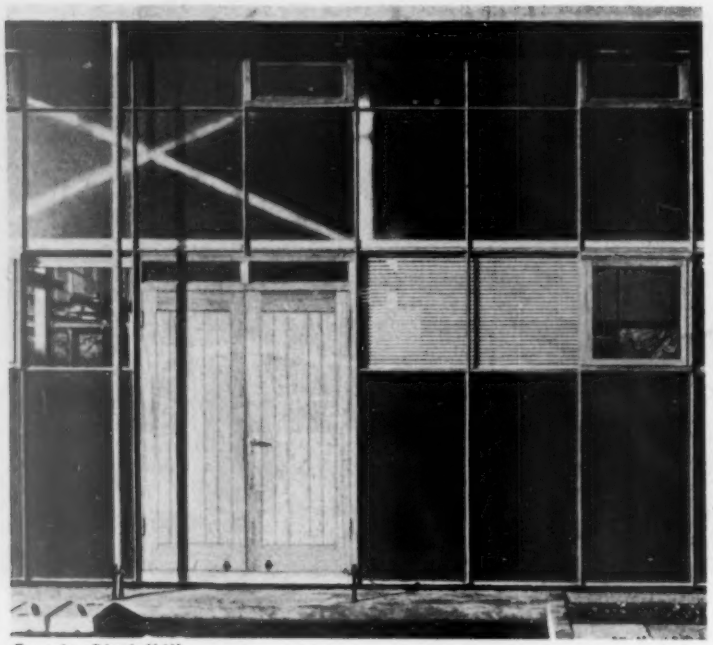
Architects: BRUCE MARTIN AND JOHN WEATE (British Standards Institution)
Landscape Architect: H. F. CLARK
Structural Engineer: A. V. R. BOWEN (British Aluminium Company Limited)
Quantity Surveyor: NIGEL ROSE (Lemon and Blizard)

THE centre consists of three separate single-storey buildings designed to provide accommodation for general office work, administration and laboratory work, and for testing industrial components and equipment for the British Standards Institution. The centre is designed to accommodate a staff of about 30, covers an area of about 7,000 sq ft, and the three separate buildings are as follows: Block "A": protective helmet test shop, electrical test shop and maintenance shop. Block "B": laboratories, administrative offices, lavatories and stores. Block "C": a general office able to be divided into smaller offices. The construction generally consists of an assembly of light factory-made building material and components. The structure consists of an aluminium structural frame bolted to a reinforced concrete slab raft. The roofing is of light corrugated aluminium sheet on timber purlins lined internally with insulation material. The external walls are of light panel construction, having two separate skins, the inner lining being similar to the internal partitions. Services generally are run under the floor slab in ducts, in the slab, and at an intermediate level of the structural framing. The sanitary system is connected to the main drainage, the heating is by means of electric



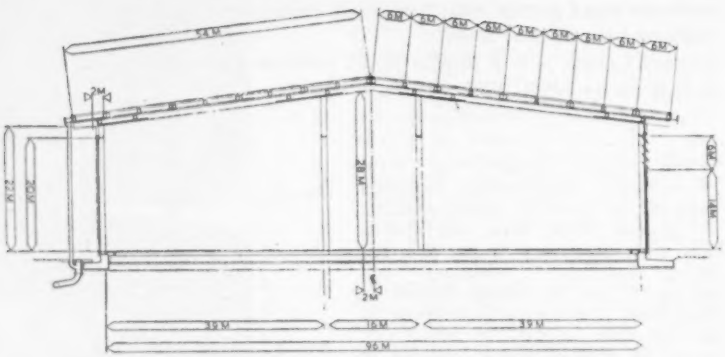
Above, bolting the aluminium structural frame on site, and below, detail of roof and the exposed frame in Block "B"



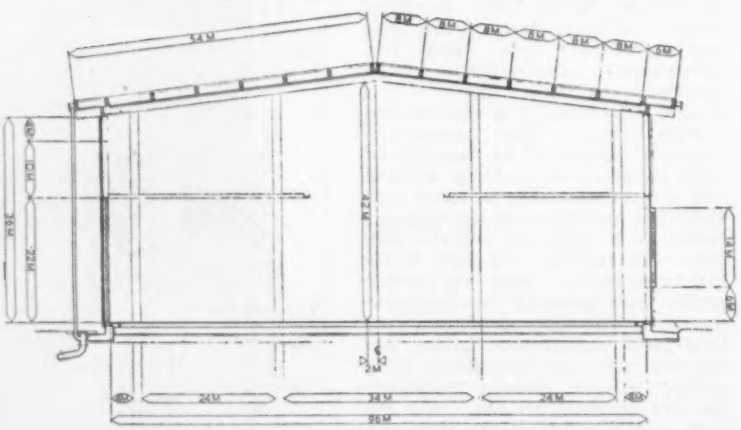


Facade: Block "A"

OFFICES AND LABORATORY

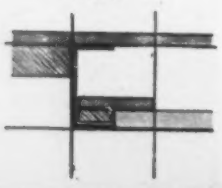


MODULAR SECTIONS : BLOCK "C" ▼ BLOCK "B" ▲



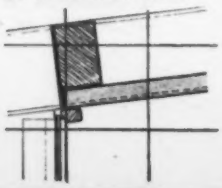
MODULAR JUNCTION DETAILS : SCALE : 1 IN=8 IN

JOIST TO CEILING PANEL



JOIST TO EXTERNAL PANEL

CEILING PANEL TO EXTERNAL PANEL



cables in the floor screed and the lighting system fluorescent tube fittings. Fixed and fitted furniture have been designed as part of the building. The external ground works and planting have also been considered as part of the design.

The dimensions used in the Hemel Hempstead Centre building consist of the module of 4in, multiples of the module (modular dimensions) and sub-modular dimensions (a range of small sizes below 4in).

The module and modular dimensions are used primarily in two different ways: for the basic dimensions of the components (or the spaces they occupy) and for the sizes used in the design. The sub-modular dimensions are used for sizes of sub-modular parts and their disposition in the *module* spaces.

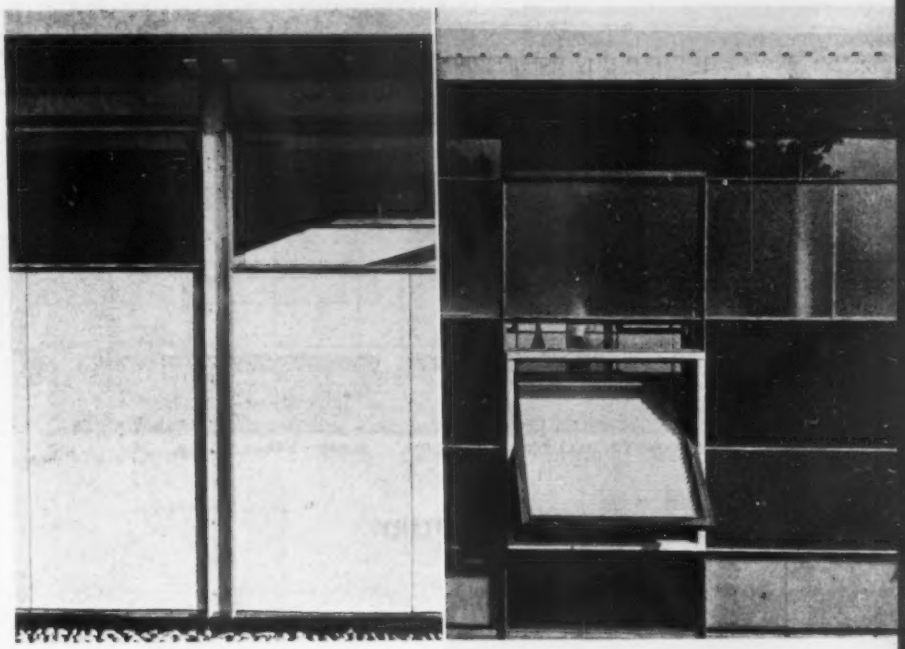
Sizes for Components

The modular sizes for components were chosen on the basis of the functional requirements of the components concerned and in relation to their position in the building. Thus for example, panels were not determined by the size of the planning grid but according to manufacturing considerations and their arrangement on the plan to suit adjoining stanchions and to make up the required wall lengths for the rooms needed. Similarly the overall width of door frames was governed by the sizes of door openings required in different parts of the building. The sizes of windows were arrived at by the choice of cill heights, head heights and suitable widths in relation to the office or laboratory spaces they were to serve and to the economical use of material. Cupboard units were dimensioned to provide conveniently sized storage accommodation to take files, clothing, or shelving as needed. Sinks were selected to a convenient size for their requirements and arranged in bench units to fit the spaces available.

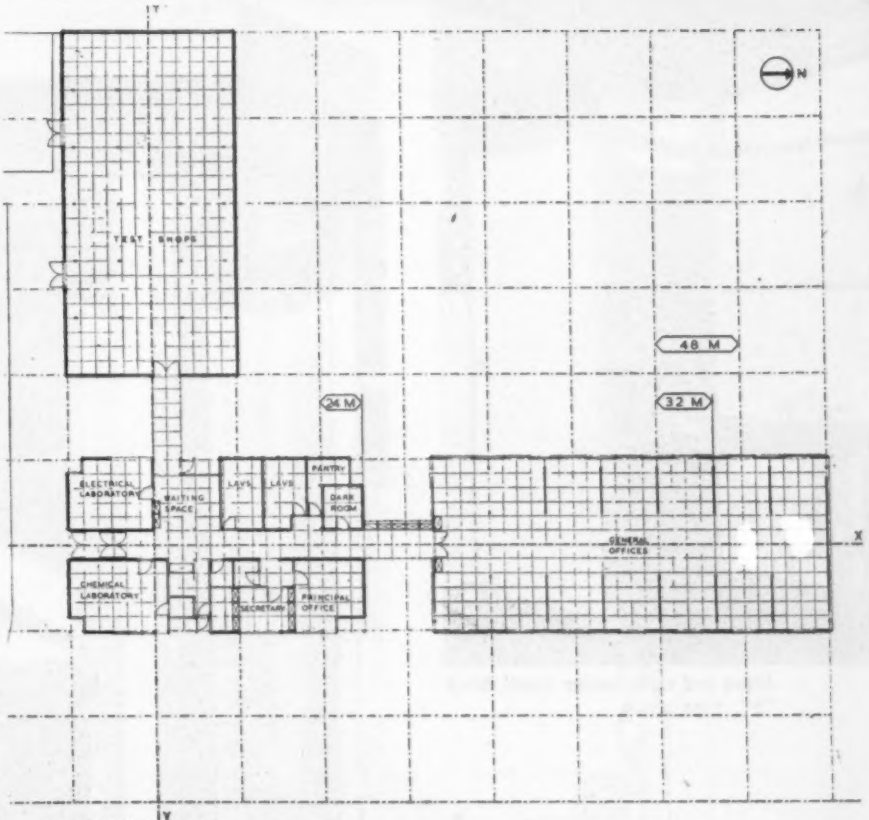
Components having sizes less than the module occur and are carefully located in relation to the modular reference lines. However, no particular sub-modular sizes are chosen, those that occur being accepted. For example, the thickness of the wall panels is 36mm, the aluminium tee sections for the wall cladding measure $1\frac{1}{2}$in by $2\frac{1}{16}$in overall, and there are a number of wood bead sections whose sizes vary from $\frac{1}{2}$in by $\frac{1}{2}$in to 4in by $\frac{7}{8}$in.

Sizes used in the Design

Possible sizes for the planning grid were 6M to 12M. 6M was considered too small for the size of the building, 7M was still too small and also a number having no factors. 12M was too large an increment especially for the small offices and spacing of tee bars in the test shop, where flexibility in modifying room sizes was a requirement. 11M has no factors,

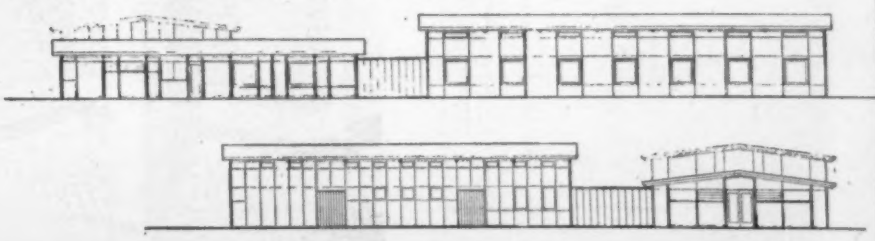


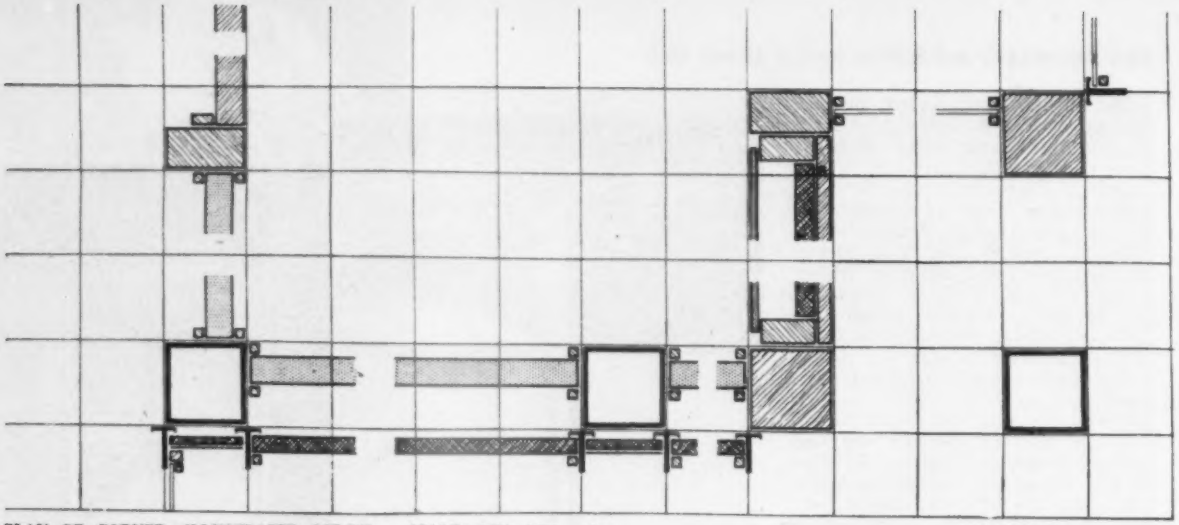
Facades: left, Block "B", right, Block "C"



▲ **MODULAR PLAN**

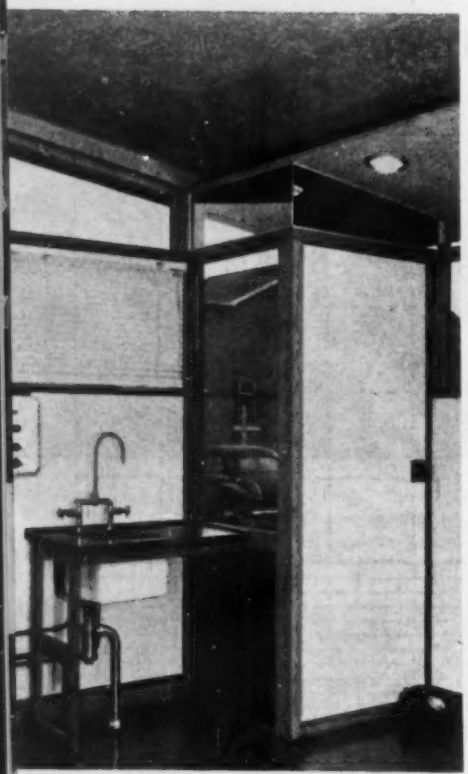
▼ **ELEVATIONS, BLOCKS "B" AND "C", AND BLOCKS "A" AND "B"**



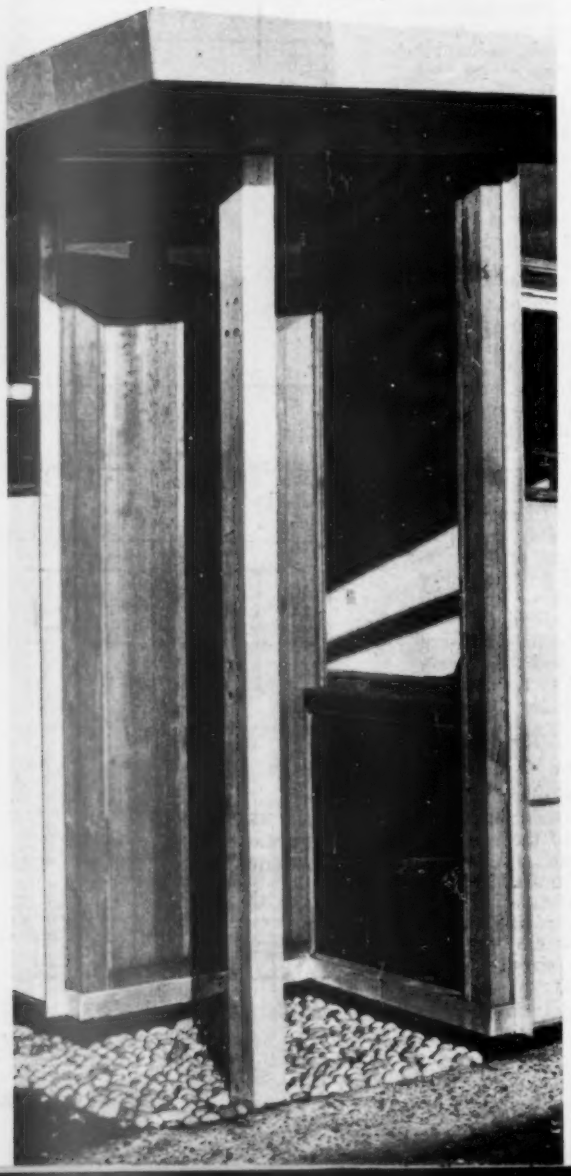


PLAN OF CORNER, ILLUSTRATED BELOW. SCALE : 1 IN=8 IN

OFFICES AND LABORATORY



Above and right, corner detail, Block "B", plan above



ALUMINIUM

ALUMINIUM

WOOD BLOCKING

GLASS

GLINEX

INSULATION

ETERNIT I.C.C. ASBESTOS

TIMBER

PLYWOOD

PLYWOOD

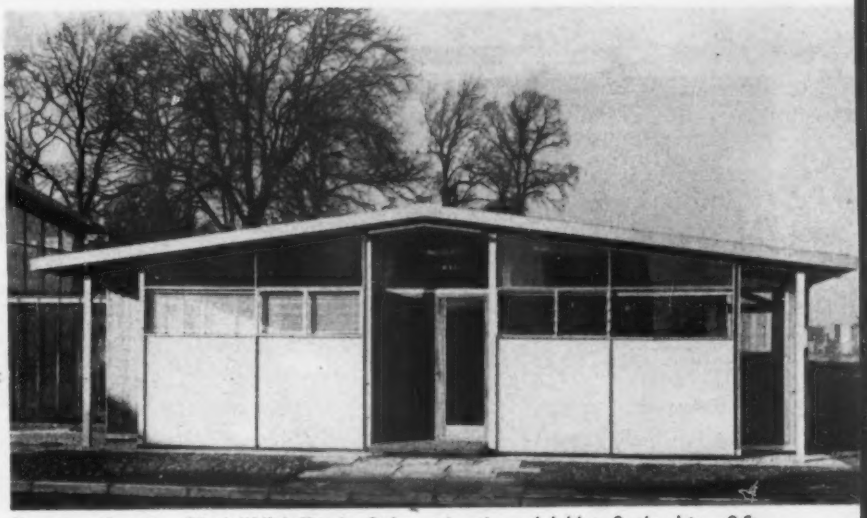
10M, while convenient for school design, was thought to suffer from the same disadvantages as 12M. The choice was therefore narrowed to 8M or 9M. Apart from a number of small factors affecting the decision it was thought that an overall economy might be achieved by choosing the smaller of the two sizes especially in the planning of all the small rooms for Block "B" and in the economic spacing of the stanchions.

Widths of corridors and sizes of smaller compartments were based on accepted anthropometric size data and partitions did not therefore necessarily follow the lines of the planning grid.

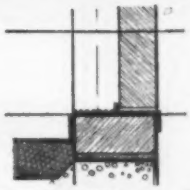
Over the whole site a grid of 48 modules was used to which is related the position of each of the three blocks and the site boundaries. In addition, a planning grid of 8 modules is used throughout the design and every sixth grid line coincides with the site grid. The position of the structural stanchions is governed in the longitudinal direction of each block by a regular structural grid of 32 modules (for Blocks "A" and "C") and 24 modules (for Block "B"), but in the transverse direction of the blocks the stanchions are placed on the basic module grid which underlies the whole design.

To sum up, the design is built up progressively on the basis of grids: (a) the basic modular grid of 4in. (b) the planning grid of 8 modules, or 32in. (c) structural grids (in a longitudinal direction) of 24M (8ft). or 32M (10ft 8in). (d) site grid of 48M or 16ft.

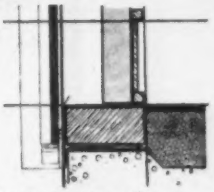
The sizes of the modular grids were each chosen to suit the function of the grid concerned in relation to the particular building requirements. The planning grid is essentially a large-scale reference grid to assist planning by providing a set of lines not too close together, not too far apart and usefully related to the spaces required for activities going on in this building. The structural members have been laid out on structural grids based on the space requirements of the occupants related to multiples of the planning grid. For example, in the general office block it was thought that the width of an office should lie between 10ft and 12ft and since it seemed desirable to relate the structural system to the planning grid possibilities were 8ft, 10ft 8in and 13ft 4in. In fact, 10ft 8in was chosen for the general office and 8ft was used in the administrative offices and laboratories. In the transverse direction, however, it was found that the placing of the stanchions on the planning grid would have unnecessarily restricted the design of the frame in relation to the external walling and the internal planning. As a result the stanchions are not placed on the planning grid or in fact on any regular structural grid but occur on the basis modular grid of the plan. Thus, in



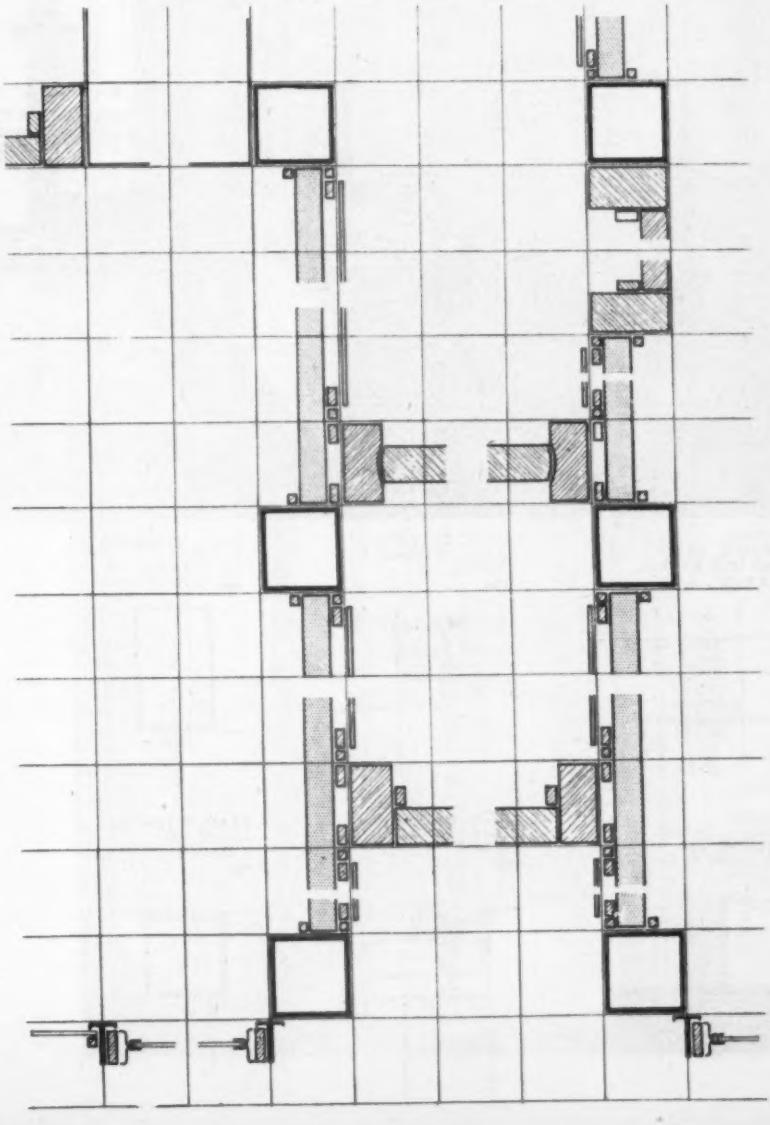
Entrance elevation, Block "B" (offices). Below, plan through lobby. Scale, 1 in=8 ft



CILL, EXTERNAL DOOR ▲

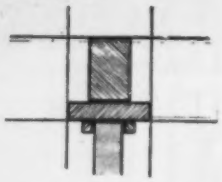


CILL, EXTERNAL AND INTERNAL PANELS ▲

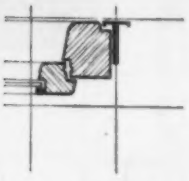


Interior of Block "B" (offices) towards entrance doors

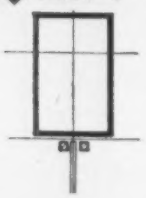
SECTION, INTERNAL PANEL HEAD (SEE FACING PAGE)



PLAN, EXTERNAL WALL, WINDOW (BLOCK "A")

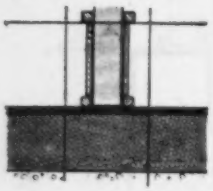


PLAN, INTERNAL PANEL TO COLUMN, BLOCK "C"

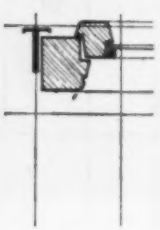


OFFICES AND LABORATORY

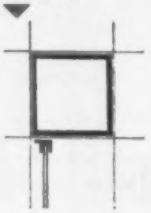
SECTION, INTERNAL PANEL TO FLOOR (SEE FACING PAGE)



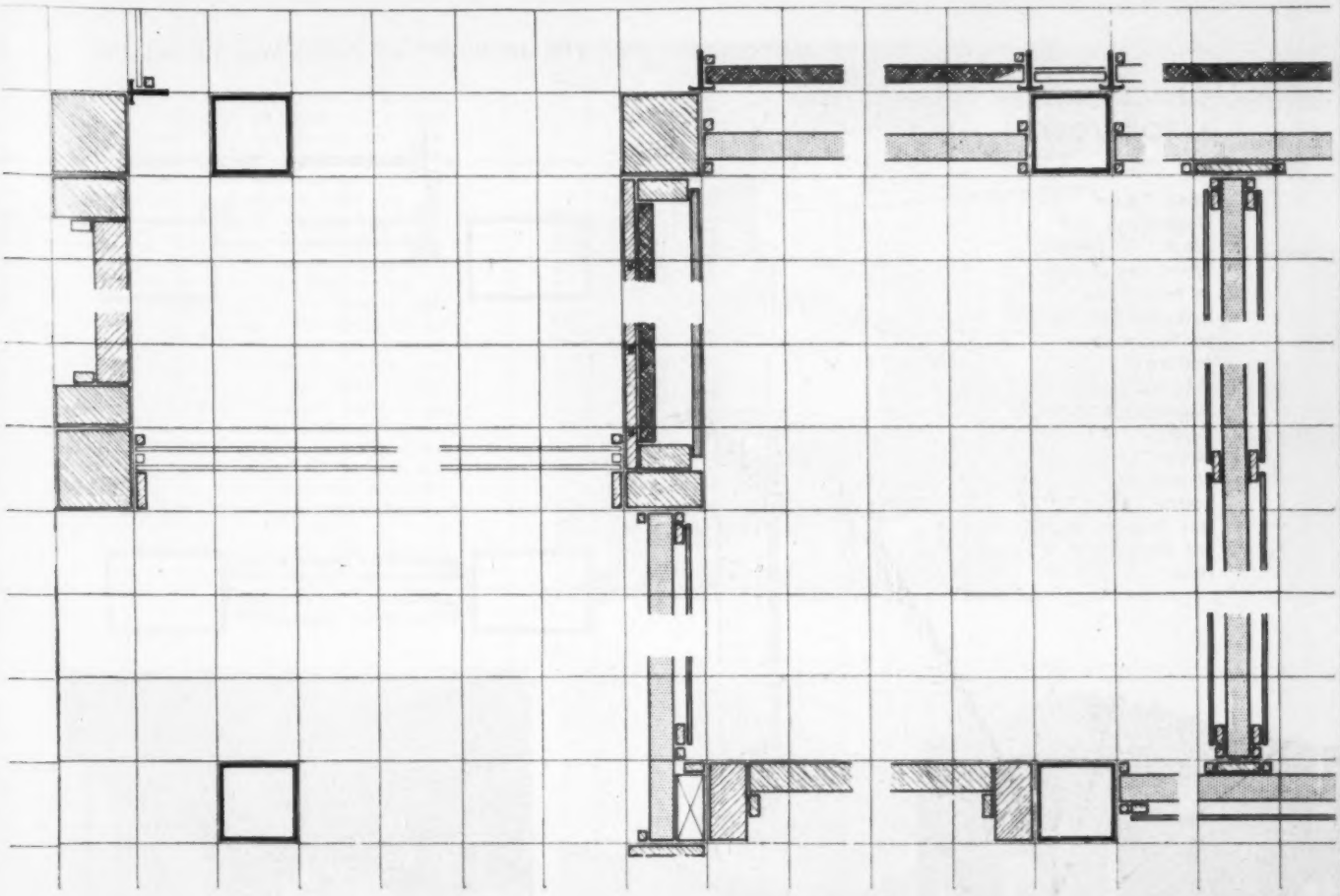
PLAN, EXTERNAL WALL, WINDOW (BLOCK "A")



PLAN, INTERNAL PANEL TO COLUMN

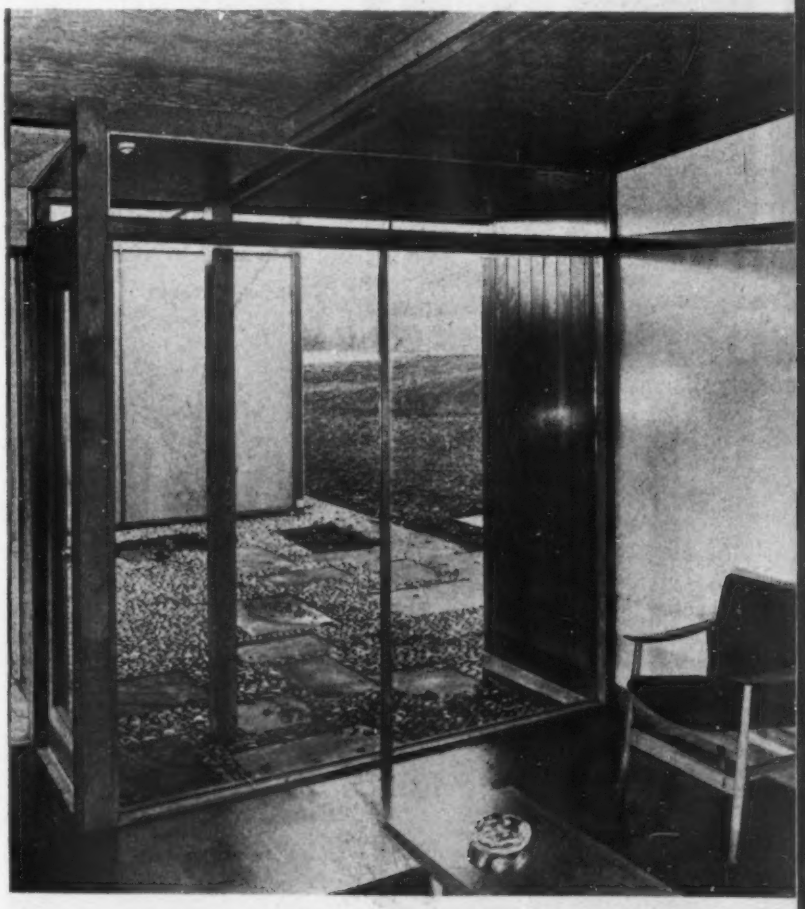


Facing page, plan of internal corner in Block "B". Extreme right, view of the same corner



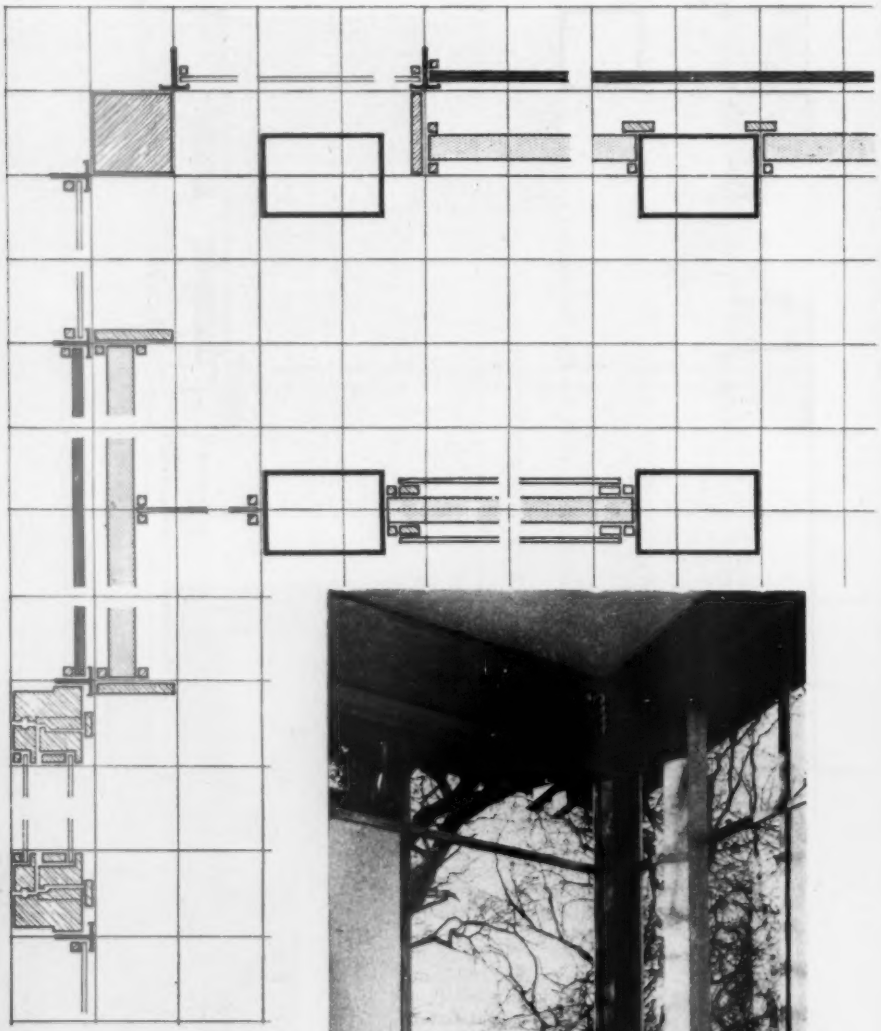
the general office the stanchions are 4 modules (16in) from the inner face of the external walling and the inner stanchion is placed so as to give a modular distance of 24 modules between the face of the inner and outer stanchion (the equivalent of three planning grids). The site grid size of 48 modules (16ft) was reached at a late stage in the design. It was decided to make it a convenient multiple of the planning grid and to use it to relate the overall sizes of the buildings as they developed and their approximate relation to the site boundaries it was found that by choosing a site grid of six times the planning grid the whole of the design could be slightly adjusted and altered on this basis. This selection would have been better integrated at an earlier stage of the design.

In Block "A", the test shops, it was thought desirable to be able to place partitions on any planning grid position and to make this possible the mullions on the external wall are spaced regularly, also placed on the planning grid positions: eight modules apart. As a result, whenever a partition is moved it can be connected to the external wall at a mullion position. In the case of Block "C", general office, the unit of the design is a single office space 32 modules square and the window is designed in relation to this unit space.



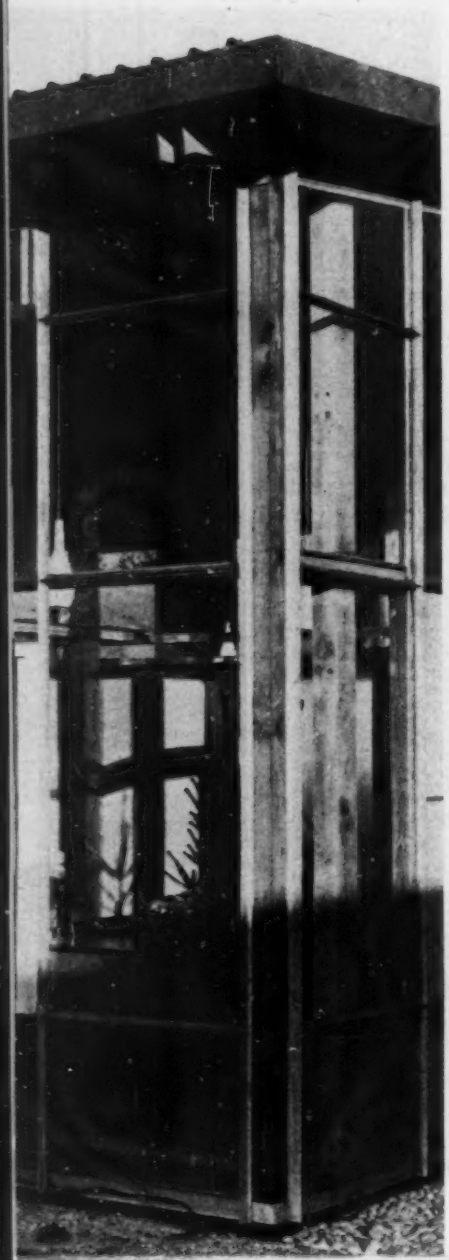
OFFICES AND LABORATORY

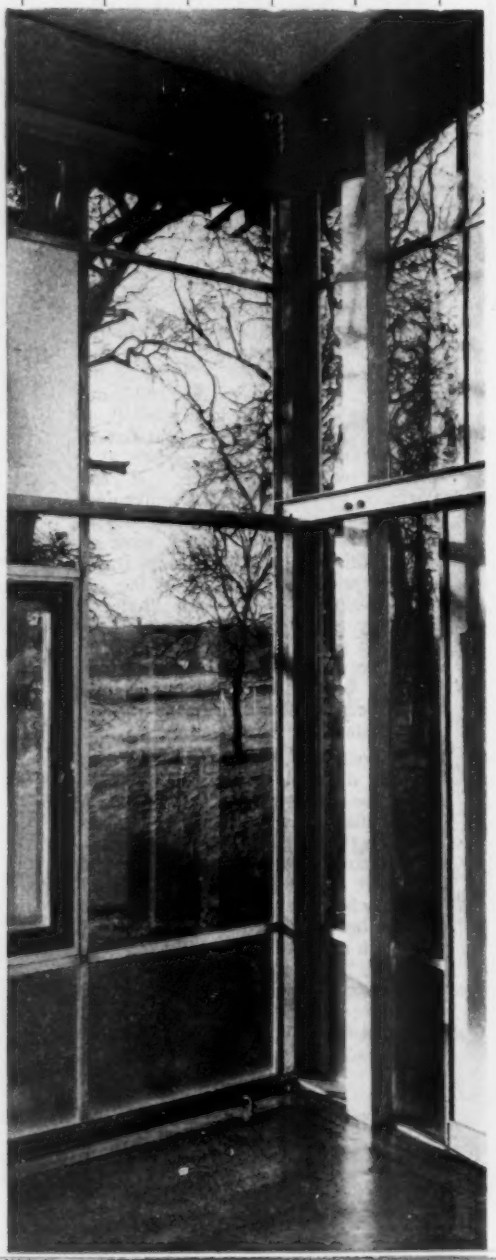
Block "A" (laboratory) and Block "C" (general office) are similar in height and assembly but the window mullion pattern is different since the requirements are different. Although Block "C" is divided into several offices it was intended to be one large open room



PLAN OF EXTERNAL CORNER OF BLOCK "A" (BLOCK "B" SIMILAR)

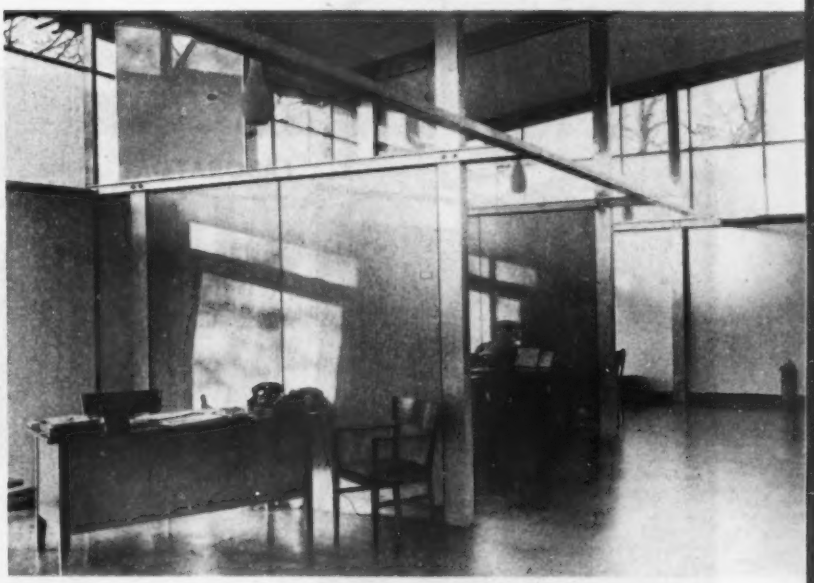
SCALE: 1 IN=8 FT

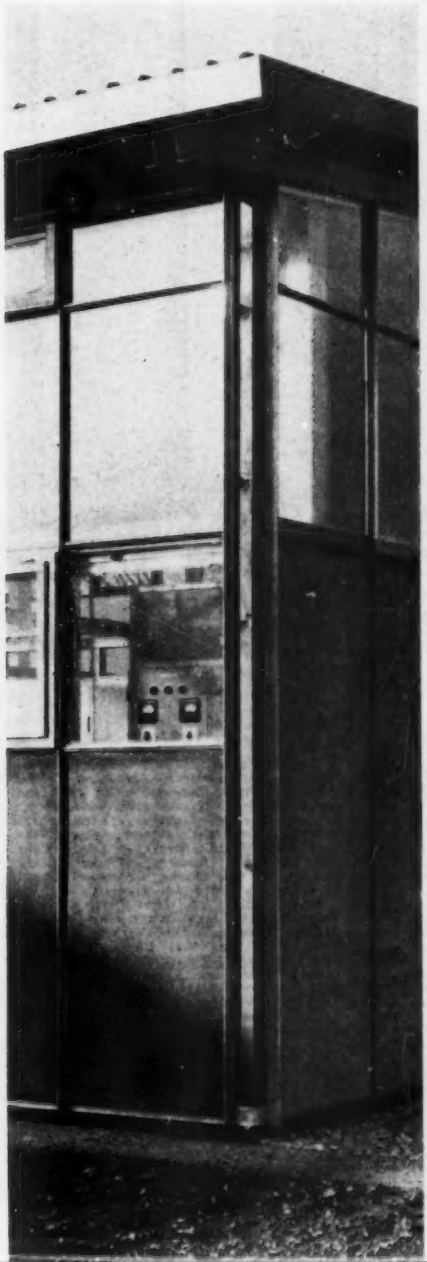


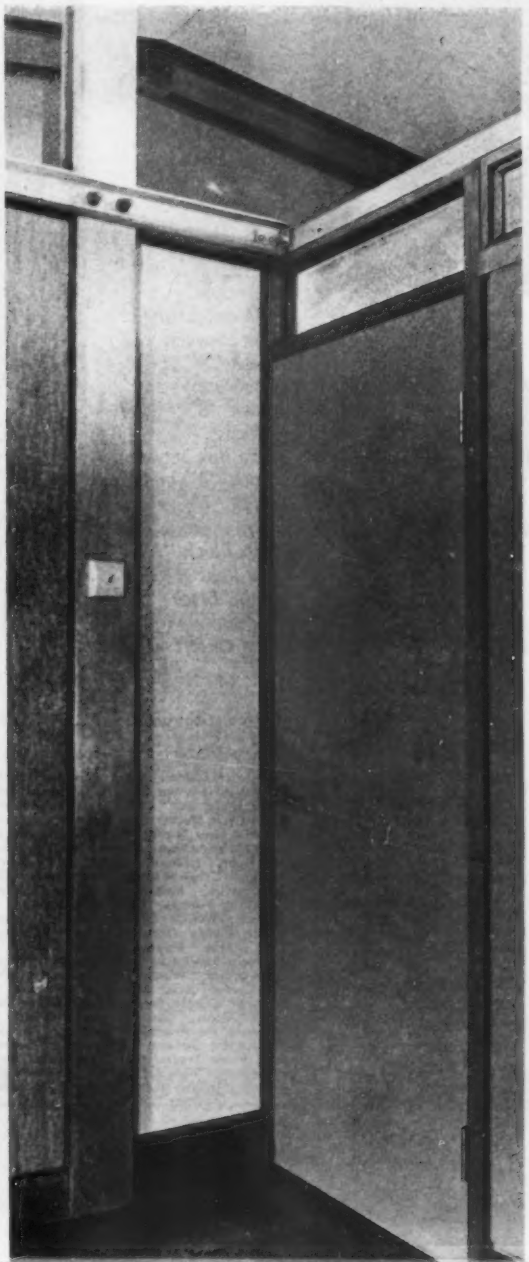


Left, external corner of Block "C" (general office) and right, the same from inside the room

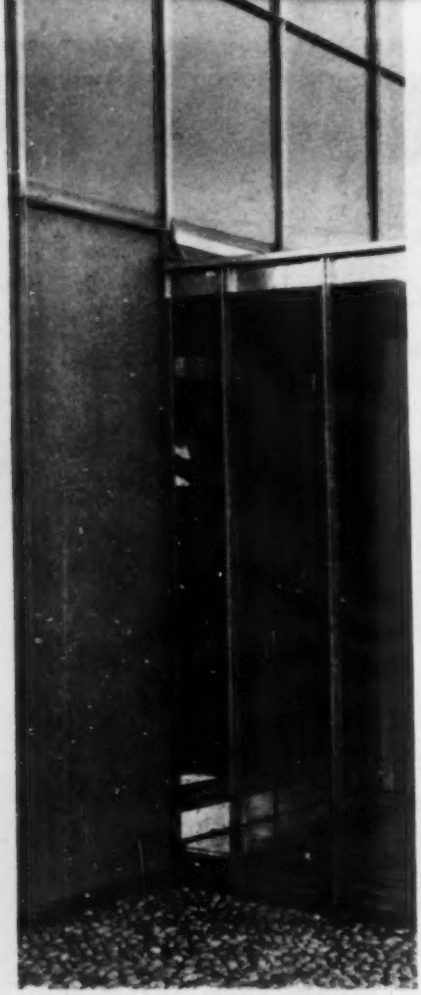
Entirely as a result of this the spacing of the mullions on Block "C" follows a different pattern from the other blocks. Block "B" consists of a collection of rooms of entirely different sizes and requirements which are not likely to be altered for the whole life of the building, for example, lavatories, stores and the two specialized laboratories, so the requirement of the external walling is to meet a wide variety of lighting and ventilation requirements. Also, this block provides the main entrance to the centre and has connections to the other blocks. These different influences have led to a design of external walling laid out on the basic module grid. In other words, the mullions of the external walling do not follow the planning grid like Block "A" and have no regular pattern like Block "C" but follow an irregular, although modular, sequence around the whole perimeter of the building.



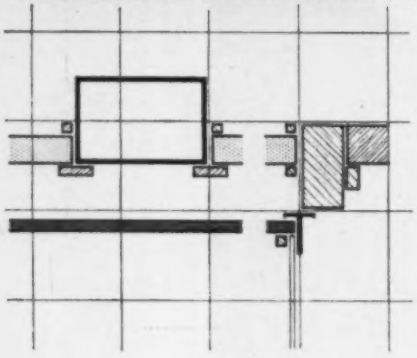




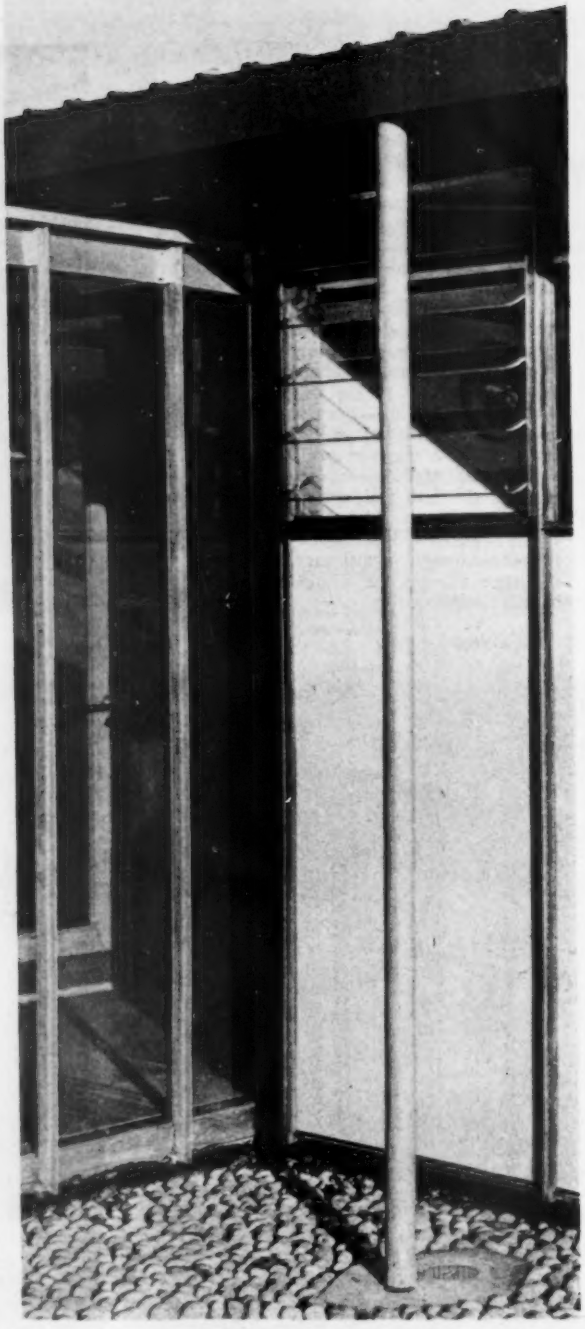
Top, view of general office, Block "C". Left, internal partition with light switch placed on column. Far left, external corner of Block "A"



OFFICES AND LABORATORY



The connecting link between Block "A" (laboratory) and Block "B" (offices). (The link between Block "B" and Block "C" is similar.) Left, Block "A" and link. Right, Block "B" and link. Plan on left

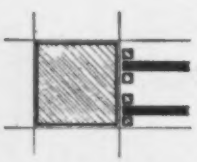


General Contractors: ALLEN FAIRHEAD & SONS LTD.

Sub-contractors and suppliers:

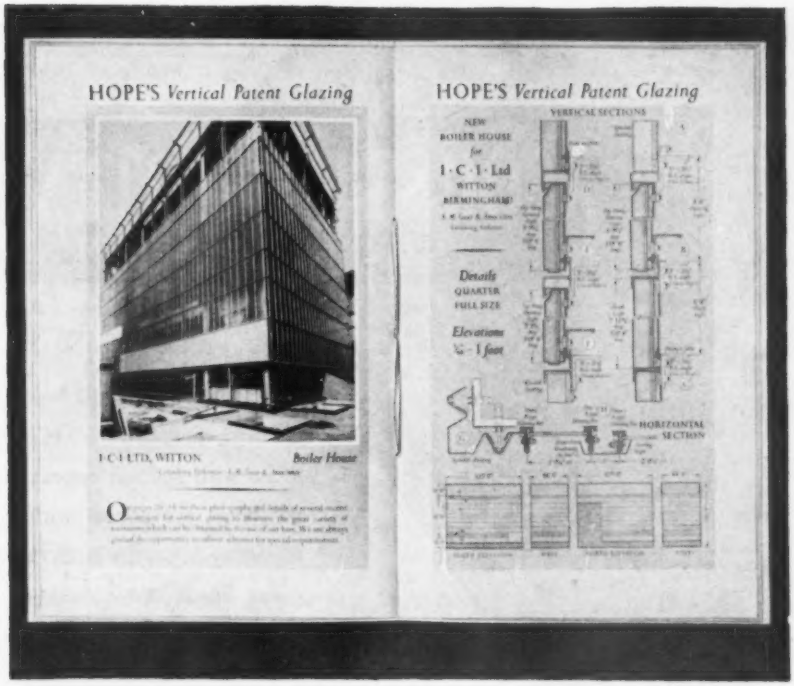
Additional Builders' Work: Dunham Builders Ltd. *Aluminium Extrusions:* Northern Aluminium Co. Ltd.; British Aluminium Co. Ltd. *Asbestos Panels:* G. R. Speaker. *Building Paper:* Sankey Sheldon Ltd. *Clocks:* Gent & Co. Ltd. *Cork Floors:* Sub-let by General Contractors. *Cupboard Units:* Bruynzeel Wood Products Ltd. *Cycle Blocks:* Stelcon Ltd. *Emulsion Paint:* Vitretex Ltd. *Floor Heating Installation:* Eastern Electricity Board. *Floor Sealer:* Floor Treatments Ltd. *Flush Doors:* Sub-let by General Contractors. *Foamed Plastic Panels:* Jablo Plastics Industries. *Furniture:* Educational Supply Association Ltd.; Russel Furnishings; Conran Furniture. *Internal Telephones:* Modern Telephones Ltd. *Gas Installation:* Eastern Gas Board. *Glazing:* Faulkner-Green Ltd. *Glinex Panels:* Gliksten Building Materials. *Ground Shaping (Landscape):* Garden Services Ltd. *Ironmongery:* James Gibbons Ltd. *Isolite:* William Kenyon & Sons Ltd. *Joinery:* E. C. Hodge. *Laboratory Fittings:* Folkards. *Lettering:* Ward & Co. Ltd.; Combra Plastics Ltd. *Light Fittings:* Frederick Thomas; EKCO; Lumitron Ltd. *Lighting and Power Installation:* Brunell Electro-Installations; Ekco-Ensign Electrics Ltd. *Linoleum:* Haskel Robertson Ltd. *Linoleum Supplier:* Catesbys. *Manholes:* Mono Concrete Co. *Mastic:* Kelseal; Storry Witty & Co. Ltd. *Naco Louvres:* N. V. Appleton. *Oil Paint:* Walpamur. *Painting:* Sub-let by General Contractors. *Pitch Fibre Pipes:* Key Engineering. *Plastering:* Sub-let by General Contractors. *Plastic Extrusions:* Howard Clayton-Wright Ltd. *Pleated Blinds:* Tomo Trading Co. Ltd. *PVC Coated Fabric:* Storeys of Lancaster. *Reinforced Fabric:* BRC. *Sanitary Fittings:* Shanks & Co. Ltd. *Site Shaping:* Garden Services Ltd. *Sliding Door Gear:* Beckett, Laycock & Watkinson Ltd. *Sliding Window Unit:* P. G. Allday. *Special Screws:* British Screw Co. Ltd. *Structural Design:* British Aluminium Co. Ltd. *Structural Frame and Roof Sheeting:* Templewood Hawksley Ltd. *Switchgear:* Revo Electric Co. Ltd. *Tarmac:* Sub-let by General Contractors. *Timber Framed Windows:* Allen Fairhead & Sons Ltd. under licence from Tomo Trading Co. Ltd. *Timber Sealer and Polish:* Cellcon Ltd. *Venetian Blinds:* Venetian Blinds Ltd. *Ventilation:* Vent-Axia Ltd.; Greenwoods Airvac. *Vitreous Enamel Steel Panels:* Stewart & Gray. *Walling Erection:* Industrial Engineering. *Yorkstone and Cobbles:* Fitzpatrick.

DETAIL PLAN OF JUNCTION SHOWN ABOVE. SCALE: 1 IN=8 IN



DETAIL PLAN EXTERNAL WALLING OUTER SKIN DOUBLE SHEET MATERIALS

HOPE'S
PATENT GLAZING



We believe this to be the most comprehensive and useful catalogue of Patent Glazing details yet produced. Copies available to Architects and Engineers from

HENRY HOPE & SONS LTD

Smethwick, Birmingham & 17 Berners Street, London, W.1

from the world's largest producers comes a new acoustic tile that is ...

ACOUSTI-CELOTEX REGD **built**

Never before has there been a Sound-Absorbing Tile like this . . . a tile with *built-in* efficiency . . . a tile with *built-on* appearance . . . a tile that combines eye appeal with very high acoustic efficiency . . . a tile from CELOTEX.

For this is NEW ACOUSTI-CELOTEX, made from the world famous Cane Fibre . . . a perfect material for sound absorption . . . plus a new white finish . . . and backed by over 30 years of experience in acoustical engineering throughout the world.

Ask your Secretary to post the coupon today for full technical data.

LESS NOISE — BETTER HEARING

NEW

ACOUSTI-CELOTEX REGD

All Celotex Products are British made by British Workmen

CELOTEX LIMITED, NORTH CIRCULAR ROAD, STONEBRIDGE PARK, LONDON, N.W.10 TEL: ELGAR 5717

Please send me technical details of the new Acousti-Celotex Sound Absorbing Tile.

NAME .....

ADDRESS .....

.....

TOWN .....

COUNTY .....

C110

Industrial Notes

● The proceedings of the conference on the Influence of Plastics in Building which was held at the R.I.B.A. on November 19 and 20, 1959, will be published in a special conference issue of the Transactions and Journal of the Plastics Institute. Copies of this publication which is to be published in February, 1960, may now be reserved for the sum of 15s which should be forwarded to the Plastics Institute at 6 Mandeville Place, London, W.1.

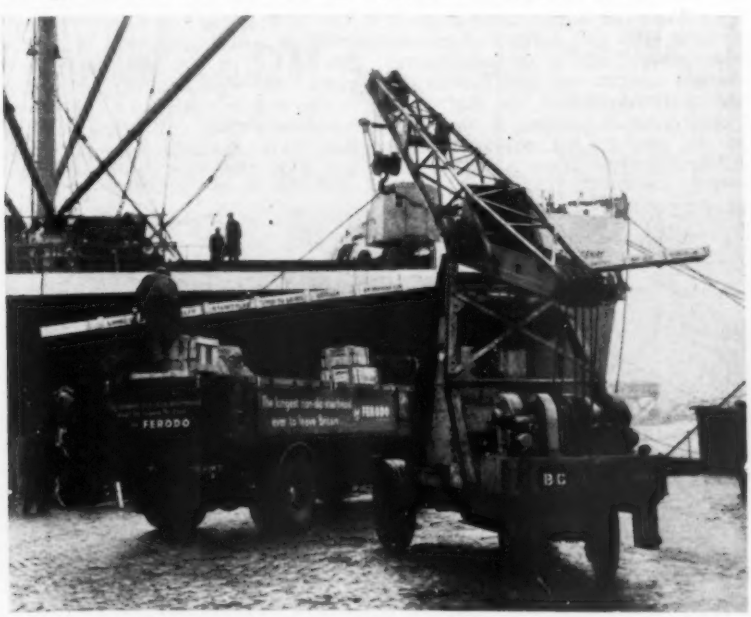
● Shanks & Co. Ltd. have obtained a new warehouse at Victoria Road, South Ruislip, Middlesex (telephone: Swakeleys 3011). The Acton warehouse and the general office from 81 New Bond Street are now operating from the new premises. The company's showroom and export department remains at 81 New Bond Street.

● Mr. W. M. Dingley, sales director of Stanley Works (Great Britain) Ltd. has been appointed in charge of a European marketing organization which is being established to handle the marketing in Europe of all products manufactured by the Stanley factories in America, Great Britain and Germany. Mr. Dingley will have the title of Director of Marketing—Europe and will operate from headquarters in Zurich, from which he will control regional organizations in Northern, Central and Southern Europe and later in the Middle East.

● Over 600 guests were entertained by the Matthew Hall Group of Companies at their annual cocktail parties and exhibition, held at the Dorchester, London, on December 8 and 9, 1959. The exhibition illustrated the wide range of the activities of the group and included a display of photographs and models showing some of the many and varied contracts already undertaken. These included air conditioning, heating, sanitary, electrical and sprinkler installations, both in the U.K. and overseas. Multi-service contracts were also well represented.

● Holman Brothers Ltd. of Camborne, Cornwall, have opened a new Midlands branch at Lightning Way, Alvechurch Road, West Heath, Birmingham, 31. These premises comprise an office block with an area of 1,220 sq ft and stores servicing and workshop areas of 2,800 sq ft. The total site area and the design of the new building allow for the addition of a second storey to the office block and for the extension of the stores and workshop area by over 4,000 sq ft. The branch sales manager is Mr. C. E. J. Bishop.

The longest one-piece non-slip stair treads ever to leave Britain were loaded on the S.S. Stirlingshire at Vittoria Dock, Birkenhead. Manufactured by Ferodo Ltd., they are 34 ft in length and will be fitted in the main entrance of the Mining and Geology block at Witwatersrand University, Johannesburg, South Africa



● Mr. Walter Griffiths, formerly northern area manager of the Building Boards Division of Bowaters Sales Co. Ltd., has been appointed sales manager of Flexpipe Ltd., a member company of the Bowater organization. He is now located at Ellesmere Port where a new factory is being constructed for Flexpipe Ltd.

● The Leeds branch of the General Electric Co. Ltd. has moved to a new building in Gelderd Road. Mr. F. Smith remains in the capacity of branch manager.

● Mr. Stanley White has been appointed Chief Press Officer by Associated Electrical Industries Ltd.

● Union Carbide International Co. of New York plan to open a technical service laboratory for plastics in Geneva, Switzerland, in order to demonstrate and develop knowledge of polyethylene within the European market.

● Mr. W. J. Vine has been appointed manager of the Lighting Advisory Department of the Export Division of Thorn Electrical Industries Ltd.

● The wages agreement for the Ballast and Sand Industry has recently been amended as follows: (1) the basic rates of wages for labourers after January 1, 1960, will be: Class I, 3s 10½d per hr, Class II, 3s 9½d per hr; (2) the rate of payment to watchmen after the same date will be Class I, 24s 9d per shift, Class II, 23s 9d per shift. The rates of wages for C Class licence drivers are still under consideration, but any adjustment will be operative from the same date as for quarry workers. Further details can be obtained from the Employers' Secretary, National Joint Council for the Ballast and Sand Industry, 48 Park Street, London, W.1.

● Humasco Ltd. is the name given to a new company formed jointly by Mitchell, Ashworth, Stansfield & Co. Ltd., pressed felt and needleloom manufacturers, and A. V. Humphries Ltd., floor covering wholesalers. The new company has been formed for the promotion and marketing of new forms of floor covering. Humasco Ltd. will operate from 23 Old Bailey, London, E.C.4 (telephone: City 1056). The board will consist of Mr. V. Crawley (director and general manager) and Messrs. J. R. and R. Crouch, T. D. Mitchell and D. R. Carnham.

● The U.A.M. Group recently changed the name of its exports subsidiary from Universal Asbestos (Overseas) Ltd., to U.A.M. Overseas Ltd.

NEW PRODUCTS

In this feature are reviewed new lines introduced to the building industry for the first time and additions or improvements to existing ones. Any advantages claimed for a product are from information supplied by the manufacturer

New Wallpaper Patterns (A)

The 1960 Sanderson wallpaper pattern books are now available and being distributed. This year's designs are even more varied and interesting than usual. The rose again predominates amongst the floral patterns and is shown in several different forms. There are also many striped patterns in varying widths, together with abstracts, trellises, wood grains, dots and medallions. The choice of effects includes machine flocks, heavy embosses, mat and glossy finishes and there is a much greater choice of colour ways per design. Many of the papers can be supplied in a washable form. Our illustration shows four typical patterns from the new book. These, from the left, are: (1) "Frost Flowers" (Pattern No. 11159), which is a geometrical design in line, with vertical emphasis. It is on a sea blue ground with the tracery in white, and is also available with either yellow, dove grey, or olive green grounds, all with white line work. Price: 10s 6d per piece. (2) Pattern 11040 which features roses in full bloom on a white plain background with red flowers and green leaves and stems. It is also available with red and yellow flowers on an off-white textured ground; and one with yellow and fawn roses. Price: 18s per piece. (3) Pattern No. 11003, which is a traditional flock paper with medallions in white, on a ribbed fawn ground with narrow vertical stripes in gold. Price: 47s per piece. (4) Pattern 11307, which is an intricate line tracery work forming an abstract impression. It is on a white ground with lines in black and is also available in three other colour ways, namely, yellow, red and grey. Price: 5s 6d per piece. Purchase tax of 6¼ per cent should be added to all these prices.

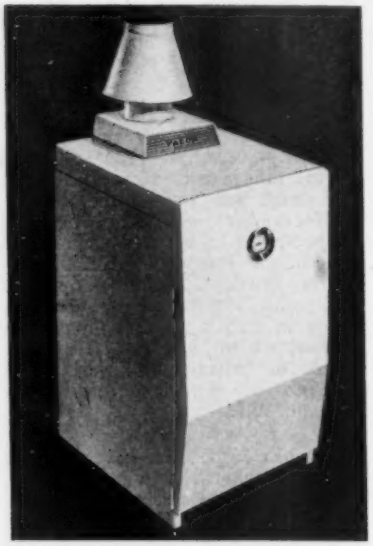
Arthur Sanderson & Sons Ltd., Berners Street, London, W.1. Museum 7800.

Readers' Information Service, Ref. A. Date 6/1/60.

★

New Oil-fired Boilers (B)

This company is now producing two oil-fired boilers for domestic installation. These are the SA 25 and the SA 35 which have respective ratings of 25,000 and 50,000 B.Th.U/hour. The former is stated to be suitable for heating two to three radiators (50 sq ft) and 30 gals of hot water and the latter for up to six radiators (150 sq ft) and 30 gals of hot water. The unit embodies an efficient heat exchanger which is claimed to reheat water quicker than any other system. The burner is of the Valor blue flame sleeve type and the pilot flame burner has a turn down device for economical running. There is a built-in oil control valve and anti-flooding safety device, whilst a thermostat maintains boiler temperature at between 140 and 180 deg F. The burner assembly can be removed for servicing by unscrewing a set of wing nuts. The boiler casing is made of sheet steel and is finished in hard white enamel and a vitreous enamel draught diverter and fuel economiser are also incorporated. The dial gauge thermometer is situated in the front of the casing. The maximum fuel consumption per hour is: SA 25—1 pint; SA 35—2 pints. The minimum consumption is 0·1 for both models. Recommended fuel: Esso domestic oil. Overall dimensions: 40⅝ in high (to top of draught diverter) by 16½in wide by 20¼in deep.



B

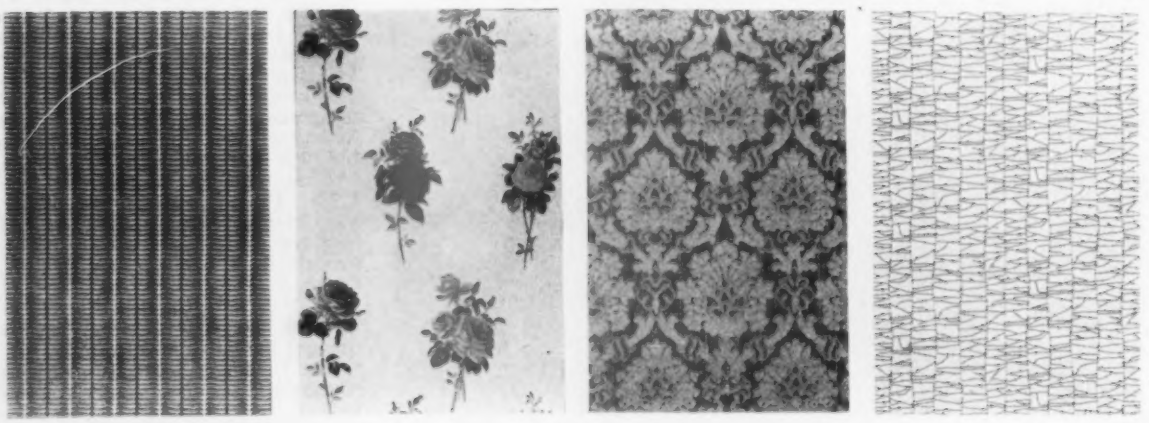
Valor Co. Ltd., Bromford, Erdington, Birmingham 24. *Erdington* 6151.

Readers' Information Service, Ref. B. Date 6/1/60.

★

Portable Electric Fires

The new Sofono range of electric space heaters (see "New Products," December 16, 1959) is completed by two portable fires known as the Saturn and the Mercury. The Saturn is available as a 1kW reflector fire (A.C./D.C.) and as a 2kW reflector fire with half heat switch (A.C. only). The Mercury has an adjustable angle reflector and is available as a 1kW fire (A.C./D.C.) which can be supplied with wall-mounting kit. There is also a 2kW model (A.C. only) with half-heat switch. All these reflector fires have gunmetal legs and back box with cloud-grey cover panels and



A

Water

Every day of your life you use water – water for drinking, washing, rinsing, heating, cooling. It's plentiful, cheap and very, very seldom lets you down. If you always use dependable Kontite fittings the chances are it never will.

Perfect joints at the turn of a spanner

There are over 22,000 types and sizes of KONTITE compression fittings, each designed to make plumbing easier, quicker, better and more economical. Produced in brass, *or in gunmetal to resist dezincification.* They are made to fit all pipe sizes up to 6″ bore.

Deliveries? *Unbeatable – most items by return.*
Catalogue? *With pleasure.*

STANDARD "S TRAP" WITH 1¼″ SEAL

Plan right with Kontite

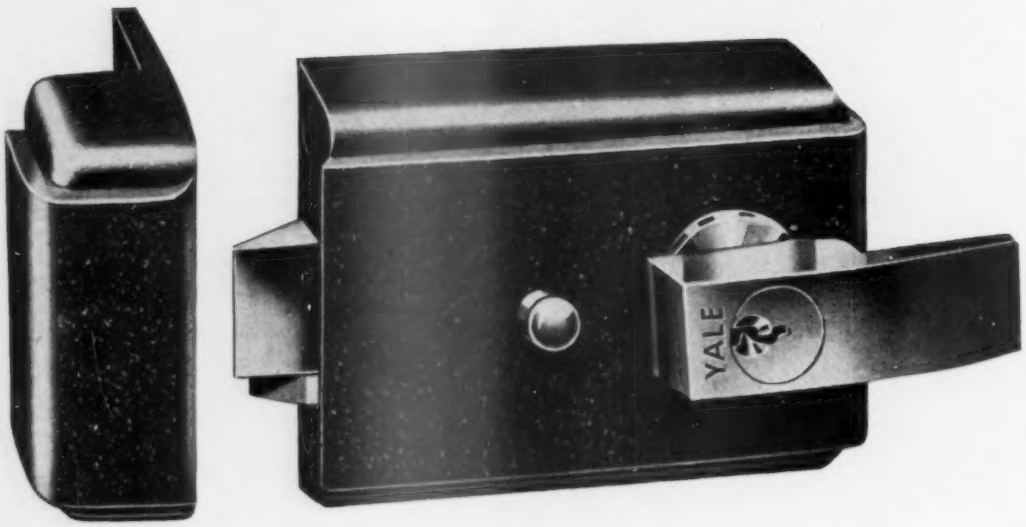
KAY & COMPANY (ENGINEERS) LTD · BOLTON · LANCS · TELEPHONE: BOLTON 3041
LONDON OFFICE: 36 VICTORIA STREET · SW1 · TELEPHONE ABBEY 2144

A member of the ALENCO Group of Companies

DOUBLE SECURITY

for glass panelled doors

YALE NO. ONE Double Cylinder automatic deadlatch



1 Lever handle can be locked against turning by key from the inside – and the door slammed shut. Latch can, of course, be opened by key from the outside.
The latch bolt can be locked in "withdrawn" position by depressing hold-back plunger.

2 The latch bolt has a normal $\frac{9}{16}$" throw. When the door is closed it is thrown forward automatically another $\frac{3}{16}$" and is *deadlocked* against end pressure, and for further security the lock is fitted with Yale's special anti-pick mushroom drivers.
This ingenious and practical cylinder rim deadlatch is one of the huge range made by Yale. A range which includes cylinder and lever, rim and mortice locks of all kinds . . . for all types of security risks. Please order through your usual Merchant or Ironmonger.
Literature: explanatory leaflets and detailed specifications will gladly be sent on request.

SPECIFICATION

Case & Staple Zinc Alloy Pressure Cast. Concealed fixing. Standard Enamelled Nickel Bronze finish. $3\frac{7}{16}$ x $2\frac{3}{16}$ x $1\frac{1}{4}$ in.
Alternative finishes :— Chromium-plated all over. Cream, B.M.A. Finish all over.

Striking Plate With reverse bevel bolt for doors opening outwards.

Springbolt Brass, polished. Reversible.

Auxiliary Bolt Brass, polished.

Lever Handle Zinc Alloy Pressure Cast. Regularly supplied. Brass plated. Independently spring loaded. Three pin tumblers.

Hold Back Plunger Brass, polished. Press-button action.

Cylinder Brass, polished (List No. 1109). Five pin tumblers.

Keys Two, List No. 8, Nickel Silver. Changes practically unlimited.

Backset $2\frac{3}{4}$ in.

For Doors From 1 in. to $2\frac{1}{2}$ in.

Packed One in a box. Complete with screws.

Master Keyed If desired.

Where there's a door there's a need for

YALE
REGISTERED TRADE MARK

The YALE & TOWNE Manufacturing Company
British Lock & Hardware Division · Willenhall · Staffs

NEW PRODUCTS (continued)

handle, the fires themselves being finished in Mocha, flame and clover pink. The safety guards on the fires meet the requirements of the Heating Appliances (Fire Guards) Regulations, B.S. 1945:1953. From the point of view of standards of construction, safety and testing, the heaters meet the requirements laid down in B.S. 1670: 1956. Voltages: 200/220 or 230/250V. Prices: Saturn: 1kW, £3 6s 3d, 2kW, £4 5s 9d. Mercury: 1kW £4 9s 11d (wall-mounting kit, 8s 7d), 2kW, £5 1s 9d.

Sofono Electrical Division, Grange-Camelon Iron Co. Ltd., 4 Stratford Place, London, W.1. Mayfair 5054.
Readers' Information Service, Ref. C. Date 6/1/60.

★

New Flooring Units

The new Precon range of flooring units can be made from either reinforced or prestressed concrete and have a core of lightweight concrete. The effect of this core is to increase considerably the natural heat and sound insulation properties of the units. Units are made to a width of 1ft 6in. A cross-section of a Precon floor unit is the same for both the reinforced and the prestressed types. Data boards on the Precon range of floors are available from the makers on request.

Precon Ltd., Harbour Road, Rye, Sussex.
Readers' Information Service, Ref. D. Date 6/1/60.

★

Fibreglass Bathroom Suite

A new bathroom suite in Fibreglass was shown by this company at the recent Building Exhibition. It is specially designed as a matching suite with modern styling. The bath measures 6ft 7in long by 2ft 4in wide by 1ft 11in high, and can be fitted against a corner of the bathroom or alternatively in the centre of a wall. The pedestal hand basin measures 2ft 9in high by 2ft long by 1ft 3½in wide. The pedestal fits flush with the wall to cover unsightly pipes and there is an unusually large area for accommodating soap and face cloths. The suite is obtainable in dual colours or in one colour. The range includes: primrose, black, lilac, blue, cream and green, and the units can be supplied in any combination of these colours.

James Halstead Ltd., Crow Oak Works, Whitefield, nr. Manchester. Whitefield 2251.
Readers' Information Service, Ref. E. Date 6/1/60.

Window Ventilator Coupling (F)

A specially designed coupling has been introduced with which two or three Permavent window ventilator units can be joined together to give the desired length up to 6ft. Each Permavent unit has a separate trigger-operated shutter which provides variable control of ventilation and the extended unit should be suitable for the modern picture-type window. Permavent all steel horizontal window ventilators are light in weight and stated to be weatherproof. When fitted within the glazing rebate at the top of metal or timber windows and doors Permavent ventilators will remove stagnant air conditions and eliminate probable condensation damage to decorations. Three types of ventilators are: Mark I (Standard), Mark II (Controlled) and the Minor and these models are supplied for standard externally glazed windows, unless otherwise specified. They are made of Zintec steel and stoved primed three coats ready for final painting.

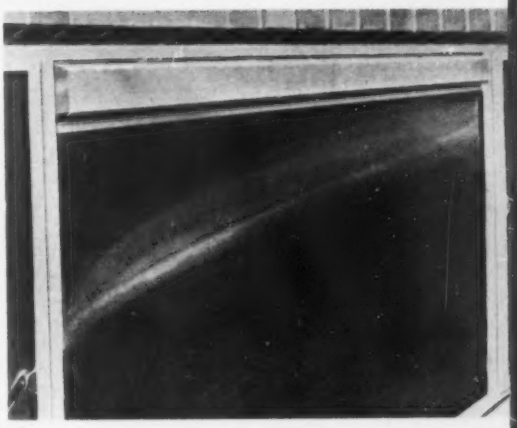
Greenwood's & Airvac Ventilation Co. Ltd., Beacon House, Kingsway, London, W.C.2. Chancery 8135.
Readers' Information Service, Ref. F. Date 6/1/60.

★

New Thermal Insulation

Protexulate is a fine mineral powder for use in underground installations as a complete thermal insulation and protection from corrosion of pipes used for heating and cooling. It should be poured direct from the bags in which it is supplied into the trench so as to cover the pipeline. The empty bags should then be placed over the powder and the trench filled in with earth. It is stated to be unnecessary for the pipes to receive a protective coating before Protexulate is used. The powder is claimed to have a strong water repellent action and to prevent the infiltration of moisture, even if the ground is saturated with water. It is also claimed that the heat losses of pipelines insulated with the new product have been determined by the thermodynamic laboratory of the Liége University, whose test reports show the thermal conductivity as $K=0{\cdot}935+0{\cdot}00026$ (B.Th.U. in/ft 2hr deg F). Protexulate is stated to be unaffected by normal constituents of the soil and to be capable of being stored indefinitely without risk of deterioration. The dielectric constant of the product is 2·7 and it can be used for conduits with a temperature range from 120 to 480 deg F. In addition, Protexulate is stated to give complete protection from corrosion.

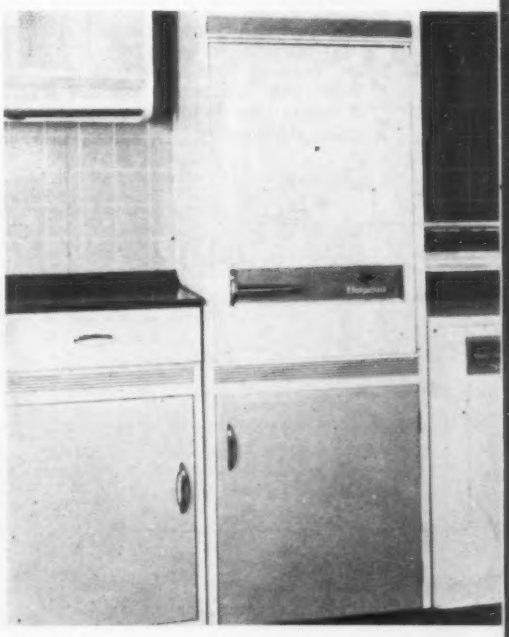
Croxton & Garry Ltd., 16-18 *High Street, Kingston-on-Thames, Surrey. Kingston* 9443.
Readers' Information Service, Ref. G. Date 6/1/60.



F

New Hotpoint Refrigerators (H)

The 1960 Hotpoint Refrigerators, two in number, are known as Iced Diamonds. They are the E.37 Super and the E.50 Super, with respective capacities of 3·7 and 5·0 cu ft. The E.37 can be either free standing, built under existing working surfaces, or placed chest high in a line with kitchen units (as illustrated) with the handle and silver escutcheon in the lower position. The door opens within the width of the cabinet and can be provided in either right or left-hand openings. It has a shelf area of 7·1 sq ft and the inner door panel holds a butter compartment, an egg rack and two bottle racks, one for taking very tall bottles. There are three shelves including one which is adjustable and a full width salad bin stands at the base. The E.50 is similar in appearance but has a shelf area of 9·7 sq ft and the inner door



H

NEW PRODUCTS (continued)

panel has butter and cheese compartments, an egg rack and two bottle racks. It has three full width shelves including two adjustable ones and a full width salad bin at the base. Both models have automatic interior lights and large stainless steel freezers which can keep ice cream for a week, and also provide adequate space for frozen food and one ice-tray with a chiller dish beneath. Both models also include the rollers which were introduced on last year's models and which enable the refrigerators to be moved with ease. The E.50 is supplied with a vitreous enamelled working table top surface as standard and the E.37 with a stove enamelled top, although a vitreous enamelled table top can be supplied if the refrigerator is required to be free standing. Colours: cabinet, white and cream. Vitreous enamelled table tops: red, green, blue, white or cream. The escutcheon panel holding the door handle is a silver colour, incorporating the Hotpoint winged emblem. Overall dimensions: E.37: 34⅞in high (36in with v.e. table top) by 21in wide by 21in deep; E.50: 36in high by 24in wide by 24in deep. Prices: (including purchase tax) E.37, 60gn (63gn with v.e. table top); E.50, 75gn.

A.E.I.—Hotpoint Ltd., 33 *Grosvenor Place, London, S.W.*1. *Belgravia* 7011.

Readers' Information Service, Ref. H. Date 6/1/60.

★

Multiple Skip Handling (I)

Trip-Skip equipment is a new development in materials handling on building and construction sites. With this equipment one or more dumpers can handle any number of crane skips and service many working points. The skips are usually fitted with front opening doors and can be emptied from a crane or directly from the dumper. As dumper skips they have advantages over the conventional tipping skips in that they are capable of spreading materials with a controlled discharge. They can also partly discharge at a number of different points. The basic set of equipment consists of a standard dumper equipped with an easily-fitted skip latch cradle, plus a number of skips and a number of ground frames. The dumper can pick skips from, or deposit them onto, the ground frame, full or empty. The cam action utilizes the tractive effort of the dumper to pick up or drop the skips. It has an automatic and instantaneous action and the driver neither requires assistance nor needs to dismount. The ground frames are self-centring in action and the skips and dumpers are interchangeable. They allow a good tolerance in angle of approach and variation in level for tyre wear, inflation pressure and ground conditions. In the interests of safety, the skips rest securely on the ground frames and do not need catches.

C. H. Johnson (Machinery) Ltd., Adswood, Stockport, Cheshire. Stockport 2642.

Readers' Information Service, Ref. I. Date 6/1/60.

★

Four-in-one Door Plate

This company is now producing a new four-in-one doorplate. It is known as the Foursome and combines letter-box, knocker, bellpush and keyhole in one piece. It is finished in vitreous enamel and is available in copper lustre; other colours will be produced later. Price: approximately 8s 6d.

Thomas Crompton & Sons Ltd., Ashton-in-Makerfield, Lancs.

Readers' Information Service, Ref. J. Date 6/1/60.

I

New Mobile Crane (K)

The B-41-1 mobile crane which was exhibited at the recent Building Exhibition is an all-British development of a design pioneered successfully in Australia. It is powered and driven by the engine, transmission and driving axle of an International B-450 wheeled tractor which is a 55 BHP unit. Lifting and steering are hydraulically operated. The crane is a self-contained unit with a working range of up to 5 tons and the maximum hook height of 18 ft is obtainable with loads up to 3½ tons. The new crane incorporates a differential lock which is used to bypass the differential when slippery ground conditions would otherwise immobilize a normal two-wheel-drive vehicle. There is full articulation between the front axle and the tractor unit and the jib itself is supported at the rear by a cross shaft and in the front by two double acting 6in dia cylinders which are used to raise and lower it. There is a 30 deg jib movement either side for placing loads with the tractor at rest. The 18 gal hydraulic reservoir is situated under the seat and there is an independent supply for both steering and lifting whenever the engine is running Visual aid and overload warning devices can be incorporated in the main lift circuit. Five forward speeds and one reverse are possible with a maximum of 14·7 m.p.h. This highly mobile crane has been widely used in Australia for such applications as logging, loading, stacking and general service on building and contracting sites.

*International Harvester Co. of Great Britain Ltd., Harvester House, 259 City Road, London E.C.*1.

Readers' Information Service Ref. K. Date 6/1/60.

K

The only drainage system for sites like this

Squelching round a waterlogged site at least makes you thankful that you specified pitch fibre pipes. Drain-laying goes on regardless of rain or frost, keeping your progress schedule up to date. That's when you bless those simple, precision joints that need not wait on the weather. There are so many good reasons for specifying pitch fibre pipes. May we remind you of seven?

SEVEN reasons why pitch fibre pipes cut your costs

- Laying, testing and backfilling are simple and swift—rates up to 500 ft. an hour can be achieved with semi-skilled labour
- Concrete and cement joints are unnecessary
- Schedules can be maintained regardless of weather conditions
- Pitch fibre pipes are light, non-brittle and precision made to BS 2760
- Wastage caused by breakages on site is drastically reduced
- Corrosion, root penetration, water infiltration and cracking through settlement are all eliminated
- Improved hydraulic flow makes flatter gradients possible

Pitch Fibre Pipes

Write for advice to: The Secretary, P.F.P.A., 27 Chancery Lane London WC2 · Telephone Chancery 6001

ISSUED BY THE PITCH FIBRE PIPE ASSOCIATION OF GREAT BRITAIN

THE KEY ENGINEERING CO LTD · TEMPLE TUBES · UNION FIBRE PIPES (GREAT BRITAIN) LTD

PFPA

TGA PAI

Announcing . . .

"PYRESTOS"

WHITE

"PYRESTOS" is now available with a very high grade, light reflecting surface. This surface can be used as a finish without need for further decoration, particularly for factory ceilings and for linings in general. "PYRESTOS" WHITE also serves as a primed board for further decoration.

★ "PYRESTOS" WHITE. The important Spread of Flame Classification I remains unchanged.

★ "PYRESTOS" and "PYRESTOS" WHITE is the only wood fibre insulation board which can be cut, bevelled, grooved, machined, etc., on the site, without its fire retardant properties being impaired. This is because the boards are pressure impregnated, to render them completely flameproof.

★ "PYRESTOS" and "PYRESTOS" WHITE is distributed entirely by stockists throughout the country, and is available in three thicknesses: $\frac{8}{16}$in. ($\frac{1}{2}$in. full), $\frac{11}{16}$in ($\frac{5}{8}$in. full), $\frac{13}{16}$in. ($\frac{3}{4}$in. full).

Write for samples, prices and literature to: —

BOARD PROCESSORS LIMITED

LEYBORNE WHARF, HORTON BRIDGE ROAD, WEST DRAYTON, MIDDLESEX

Telephone: West Drayton (W.E.3) 4021

Telegrams: "PYRESTOS" West Drayton, Middlesex

CURRENT MARKET PRICES (LONDON)

These prices apply to material purchased in the quantities named or otherwise as might be expected for a new building of moderate size. They include delivery and are the material basis used in the build-up of "Measured Rates" and subject to the conditions heading that schedule. Prices are under careful constant review but should be confirmed.

6 January, 1960

AGGREGATES AND SAND

1½in—all in—ballast	26/6	Yard cube
¾in do. do.	27/–	delivered
¾in screened shingle	24/6	(in five-yard
⅜in do. do.	25/9	loads or
¼in granite chippings	50/–	more)
Sharp washed sand	27/6	
Pit sand	24/6	
Building sand	24/–	
Broken brick	21/–	
1½in shingle	22/–	
Cartage of muck	10/–	

BUILDING MATERIALS AS DESCRIBED, CENTRAL LONDON

CEMENTS packed in paper bags	Per ton
Portland in 6ton lots	112/–
Do., from 1ton to 5ton 19cwt do.	124/–
Do., Rapid hardening (6ton lots)	122/6
Do. (but 1ton to 5ton 19cwt)	134/6
Cement "Aquacrete" (do.)	156/6
Do., "417" or "Polar" (do.)	156/6
Do., "White" 1ton (lots)	277/6

LIME—	
Hydrated .. including ..	134/6 (1ton loads) deliv'd
White .. .. Bags ..	132/– (2/3 do.) do.
	122/– (4/5 do.) do.
	120/– (6 do.) do.

PLASTER—	
Keenes, coarse, pink	234/– ton
Do. do. white	239/– do.
Sirapite, do.	175/– do.
Do. finish	183/3 do.
Hardwall, do.	174/– do.
Plaster, coarse, pink	164/6 do.
Do. do. white	174/– do.
⅜in Gypsum Plaster Lath ex works (600sq yds)	2/6½ sq yd.
⅜in Do. do. Wallboard do.	2/10 do.
3¼in Jute scrim (100yd roll)	9/6 each
Cow hair (under 3cwt)	109/– cwt

FIRECLAY—	
In non-returnable bags (1ton lots)	213/– ton delivered
Fire cement	12/3 14lb

BRICKS

BACKING BRICKS (in truck loads)—	
Flettons	118/– per 1,000 delivered
Do. Keyed	120/– do.
Do. bullnose	152/6 do.
Blue wirecuts (Net)	542/– do.
White	202/– do.
Southwater engineering (Class A)	400/6 do.
Firebricks—2½in	95/9 per 100 delivered
Do. —3in	115/– do.

STOCK BRICKS—	
Mild stocks	185/– per 1,000 at Works
Second, do.	274/– do.
First, do.	300/– do.

Add for delivery—approx. 55/– per 1,000 in lorry loads.

FACINGS (ex truck or lorry)—	
Rustics	150/– per 1,000 delivered
White	220/– do.
Blue pressed, 2½in (Net)	604/– do.
Do. bullnose	618/– do.
Reds (Multi sand faced)	350/– do.
White glazed stretchers	1696/– do.
Do. headers	1670/– do.
Do. bullnose	2120/– do.
Do. double stretchers	2053/– do.
Do. double headers	2173/– do.
Breeze fixing bricks	30/3 per 100
Fire tile and lumps	34/– ft cube
Wall ties—8in by ⅞in by ⅛in, galvanized	77/3 per cwt
Cement mortar (1 : 3) hand-made	99/6 yd cube

BRICKLAYERS' SUNDRIES—

AIR BRICKS	9 by 3in	9 by 6in	9 by 9in	12 by 9in
Iron .. each	2/5	3/11	5/10	7/10
Galvanized do. do.	4/1	6/9	10/2	13/7
Terra Cotta do.	1/2	2/4	5/7	11/1
Chimney pots, Terra Cotta (11 to 24) do.	1ft 8/7	2ft 14/11	3ft 34/1	4ft 58/11

PARTITIONS—			
18in by 9in Blocks keyed for plastering	2in	2½in	3in
Per yd super in 6ton lots			
In solid clinker including any half blocks	3/9	4/4	5/3
In cellular clinker blocks	3/11	4/7	5/3
In hollow clay blocks	—	4/5	5/5
Clinker blocks in small quantity	6/1	7/2	8/7

Intermediate quantities in all types may be had at intermediate prices.

Smooth in lieu of keyed faces extra cost per side 3d per yd super

SINKS— Fireclay white glazed in and out—standard quality	24 by 18in	30 by 18in	30 by 20in
London pattern, no overflow, 6in deep	76/6	95/–	105/6
Belfast, plain edge, 10in deep	90/6	151/3	204/3

FLUE, LININGS, PLAIN, CIRCULAR (FIRECLAY)—	Foot lineal Straight	Each Bends
9in diameter	4/8	14/–
10in do.	5/8	17/–
12in do.	10/9	32/9
9in diameter, beaded end, 12in high		6/3

FLUE PIPES AND FITTINGS—	4in	5in	6in
Heavy asbestos type, 6ft length	18/6	25/6	32/6
Do. 3ft length	9/3	12/9	16/3
Do. bends	7/2	9/–	10/8
Light asbestos type, 6ft lengths	16/–	20/–	25/6
Do. 3ft length	8/–	10/–	12/9
Bends	5/7	7/1	8/8
Baffler	15/5	18/4	19/4

DRAINAGE GOODS

GLAZED STONEWARE STANDARD LIST (NOV., 1956)

ORDINARY TYPE—Each	4in	6in	9in
Pipes in 2ft lengths	3/4	5/–	9/–
Bends	5/–	7/6	20/3
Junctions (4in on 4in, 6in on 6in, 9in on 9in)	8/4	12/6	27/–
Gullies with 4in outlets	12/6	13/9	22/6
4in horizontal inlets	4/–	4/–	4/–
4in vertical do.	6/–	6/–	6/–
Black iron grids	1/6	2/10	5/6

Adjustment to Current Cost	2ton lots or more	Less than 2ton lots
2in to 9in diameter "Best" pipes and fittings.	50 pieces or more	Under 50 pieces
Percentages to add	−18¾% Net	+5%

Further percentages to be independently added in respect of: British Standard pipes, etc., 10. "Best" Tested pipes, 37½. British Standard Tested, 47½.

IRON DRAINAGE GOODS— Each	4in	6in
Cast iron pipes, 9ft long	84/6	123/9
Do. 6ft do.	60/4	92/10
Do. 4ft do.	46/1	71/2
Do. 2ft do.	28/–	42/2
Short bend	19/–	50/7
Junction	33/8	70/6

CURRENT MARKET PRICES (Continued)

DRAINAGE GOODS—Continued

GULLEY PARTS—	4in	6in	
Traps, high level, invert	33/8	91/4	each
Inlet, bellmouth pattern	17/8	35/7	do.
Do. with one vertical branch	31/–	58/2	do.
Do. with two do.	84/–	122/3	do.
Extra for sealed cover	10/8	13/10	do.

RAINWATER SHOES—	4in	6in	
With vertical inlet and rebated top	44/1	87/9	each
Extension piece	19/4	23/3	do.
Flat loose coated grating	4/7	4/7	do.
Loose solid coated cover	6/2	6/2	do.

MANHOLE CHANNELS, WHITE GLAZED—

Each	4in	6in	9in
Straight, 2ft long	19/2	28/1	47/2
Taper, do.	31/11	31/11	48/5
Bends, main, half section	37/–	53/7	88/–
Do., branch, do.	22/11	31/11	—
Do., do. three quarters, do.	31/11	51/–	—
Junctions, single	30/7	53/7	—
Do., double	42/1	72/8	—

BROWN GLAZED CHANNELS—
Based on standard list (less than 100 pieces)

	4in	6in	9in
Half-round main channel (2ft long)	2/6	3/9	7/–½
Extra for stop ends	2/6	3/9	6/9
Extra for outlets	5/–	7/6	—
Channel bends with splayed ends	7/6	11/3	—
Three-quarter section do.	10/–	15/–	—

MANHOLE COVERS—	Black
24 by 18in foot traffic	29/3 each
Do. Strong do.	53/9 do.
Do. Light car traffic	95/3 do.
Do. Road traffic	119/3 do.

SUNDRIES—	Galvanized	
Manhole steps (for 9in)	9/4	each
4in Mica valve fresh air inlets	16/–	do.
Plumber's hemp	9/–	per lb
Gaskin, caulking	1/5½	do.
Canvas backed hair felt, 4in wide	9d	per ft run

ROOFING MATERIALS

WELSH SLATES (delivered)—

Sizes in inches	Full Loads per 1,000	Quantity 500 to 999 per 100	1 to 49 per doz
22 by 11	2246/–	265/–	39/–
20 by 10	2021/6	237/6	35/–
18 by 10	1413/–	164/6	24/3
16 by 10	1120/–	131/–	19/3
14 by 9 Damp Course	668/–	70/9	10/6
14 by 4½	328/–	31/–	4/9

TILES (Brosley and Staffordshire)—	per 1,000	per 100
10½in by 6½in Machine made, 6 ton lots	302/6	44/9
Do., hand made, sand faced (Berks red)	327/–	58/–
Hips, valleys and angles	36/3 per dozen	
	per 1,000	per 100
Plain concrete tiles	210/6	25/6

Sheeting asbestos corrugated, 6in pitch	8/3¾ yd super
4½in by 16 gauge, drive screws (galvanized)	17/9 gross
7½in by ⅜ hook bolts and nuts (do.)	57/9 do.
Washers, round, flat galvanized	4/10 do.
Do. do. bituminous	2/– do.

ROOFING FELT—	
Sanded bitumen felt (44lb)	1/1 yd super
Do., but 60lb in weight	1/7 do.
Inodorous felt, best quality	2/11 do.
Do., second quality	2/3 do.
Underlining	1/8 do.
Sheathing	1/8 do.
Galvanized felting nails	2/4 lb

THERMAL INSULATION—	
½in Insulating Gypsum Baseboard (600sq yds)	2/9 sq yd
⅜in Do. Do. Lath do.	2/9 do.
½in Do. Do. Wallboard do.	3/– do.
½in Asbestos (Fully-compressed) Sheet	8/4 do.
½in Insulating Cork Slabs	7/6 do.
Silicate Cotton (2ton lots)	1/6 ft cube

STONE

PER FOOT CUBE in random blocks not exceeding 20ft cube in each, free on rail London.

Monks Park 9/7 St. Aldhelm 10/10
Portland brown Whitbed 9/2
Doulting 10/2 Beer 9/–

TIMBER

Softwood—sawn—random lengths.

	Per standard	Per cubic ft
Carcassing quality	£105	12/8
Joinery quality	£125 and up	13/4

Plain edged unsorting flooring per square	⅞in 90/–	1in 110/–	1½in 138/–	1¾in 165/–

¼in Hardboard 4/1 sq yd.
Larger quantities cost less.

SUNDRIES—	Dia.	3in	6in	9in
Black hexagon bolts, nuts and washers. Each	½in	10d	1/2	1/5
	⅝in	1/3	1/8	2/1
	¾in	1/9	2/4	3/–
Sashline, hemp, good quality Per yd Run		No. 6 10d	No. 8 1/1½	No. 10 1/5
Floor brads				84/3 per cwt
Cut Clasp Nails				85/6 per cwt
Steel ordinary screws	1in No. 8 3/8	2in No. 8	6/3	per gross
Brass, do.	Do. 10/2	Do.	17/11	per gross

HARDWOOD. Normal joinery quality.		Per ft cube
Mahogany, African	Square edge	30/–
do. Honduras	do.	66/–
Teak, Burma and Siam	do.	78/–
Walnut, Australian	do.	84/–
Oak, English	Sawn Logs	42/–
do. Yugoslavian	do.	47/6
Walnut, African	do.	25/–

BUILDING BOARDS

Description	Rate	Unit
16mm Birch blockboard	202/–	Per 100ft
22mm do. do.	245/–	
Austrian Mahogany faced one side, blockboard 18mm thick	348/–	super,
Austrian figured Oak faced one side, blockboard 19mm thick	407/–	but
Beech, 6mm plywood	108/–	from one board
Birch, do. do.	81/–	
Do. 9mm do.	115/–	up to
Teak faced one side, plywood 6mm thick	374/–	a
Austrian figured Oak one side, 6mm	224/–	
Australian do. Walnut do. do. ⅛in	383/–	bundle

IRONMONGERY

	2in	3in	4in	5in	6in
Cast iron Butts, per pair	1/4½	2/4	3/7	6/11	9/8
Hinges, spring, single action regulating, japanned, each	—	8/3	12/9	16/9	22/3
Do. but double action spring only, each	—	17/6	22/3	21/–	35/9
Do. blank only, each	—	10/3	14/–	28/–	24/3

hille
CONTRACT DIVISION

NATURAL BREAK—in the well-groomed boardroom of Keymer Advertising Limited. Desk and table, usually separate, butt together to accommodate a conference. Walls, carpet, ceiling, lighting and full-depth, full-width curtains decorate without distraction. Stamford chairs and armchairs, cabinet unit, sectional settee and side tables (below) are Hille originals, here blended in a setting that assists where much is said and done. Handsome. Purposeful. Comfortable. Planned and achieved by Hille. Visit our showrooms, 39/40 Albemarle Street, London, W.1, Hyde Park 9576, or 24 Albert Street, Birmingham 4, Midland 7378, or write for brochure.

Internationally-honoured furniture for homes and offices

savings in steel

DENISON FRENCH

Steel is at the core of a good building. We have been designing structural steelwork for 32 years, improving the quality, cutting the steel weight, often by 20% or more, and speeding up deliveries.

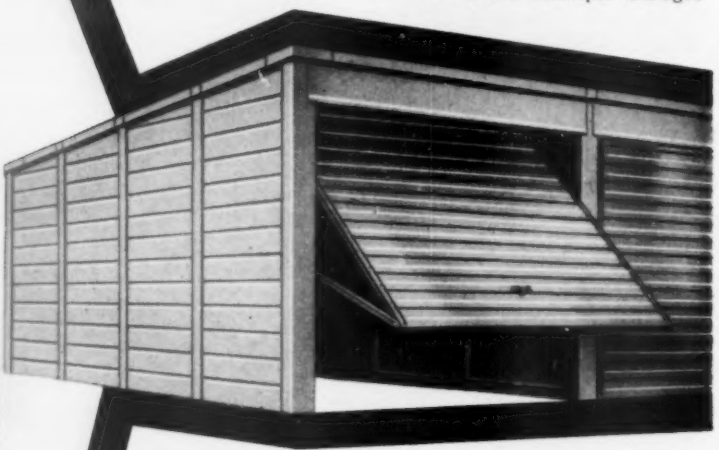
Advice and design suggestions are freely given at the initial stages to save the cost of later modifications.

DENISON FRENCH LTD.
CONSTRUCTIONAL ENGINEERS
67 CHANCERY LANE, LONDON, W.C.2
TELEPHONE HOL 2587

OVER 300 LOCAL AUTHORITIES HAVE CHOSEN BATLEY MULTIPLE GARAGES

— concrete proof of reliability!

Godiva Ribbed Multiple Garages



Batley offer the most adaptable and economical technique in lock up garage erection. Can be erected back-to-back; or stepped to suit sloping sites. Fitted with 'Up and Over' or hinged doors as required or available with wooden roller shutter doors as optional extra. Free advisory service; three years' guarantee; five years' free fire insurance; any number in one block. Attractive deferred terms. Extensive free delivery area.

Write for free illustrated brochure

ERNEST BATLEY LIMITED

96 Colledge Road, Holbrooks. Coventry 89245

96 New Islington, Manchester 4, and 123 Shepperton Road, London, N.1

CURRENT MARKET PRICES *(Continued)*

IRONMONGERY—*Continued*

	12in	18in	24in	30in	36in
Tee hinges (japanned) per pair	2/-	3/10	—	—	—
Do., but stronger, per pair	3/4	6/1	8/3	—	—
Hook and Ride hinges, per pair	—	—	13/4	16/3	24/10

BOLTS—each—	3in	4in	6in	8in	10in	12in
Cabinet, barrel, straight or necked	1/6	1/8	2/3	—	—	—
Square spring, with brass knob	1/4	1/6	1/11	—	—	—
Tower bolts	—	1/10	2/8	3/6	4/5	5/2
Barrel bolts	—	2/9	4/-	5/2	6/8	8/1
Add to Tower or Barrel bolts if necked	½*d*	¾*d*	1*d*	1*d*	1*d*	1*d*

LOCKS—each—

Rim lock, 2 lever, wrote case, brass bolt and bushing	12/9	Brass furniture	5/-
		or Bakelite do.	3/3
		Bakelite finger-plates	2/8
Mortice ock, 2 lever, bushed	12/9	Brass furniture	8/9
		or Bakelite do.	3/10

Cylinder latches, japanned case		16/-
Brass sash fastener	each	5/-
Casement fasteners (malleable)	do.	1/7
Do. stays (do.)	do.	2/2
Axle pulleys (brass face, iron wheel) 1¾in	do.	3/3
Do. as last, but with brass wheel 1¾in	do.	4/11
Sash line, No. 8 Anchor, yellow label	per yard	1/-

METAL GOODS

British rolled steel joists ex mills to basis sections on site (6in by 5in, 8in by 5in or 6in, and 10in or 12in by 6in)	£43/10/0 per ton
Extra cost over basis for following sections—	
9in or 18in by 7in, 14in by 5¼in, 15in by 5in, 14in or 15in or 16in or 18in by 6in, 20in by 6½in, 20in by 7½in, 10in or 12in or 14in or 18in by 8in	10/- per ton
5in by 4½in, 7in by 3½in, 13in by 5in	15/- do.
12in by 5in, 22in by 7in	20/- do.
6in by 4½in, 7in or 8in or 9in by 4in, 10in by 5in	25/- do.
4in by 3in, 10in by 4½in	30/- do.
5in by 2½in, 5in by 3in	35/- do.
6in by 3in, 24in by 7½in	40/- do.
3in by 3in	50/- do.
4½in by 1¾in	65/- do.
3in by 1½in, 4in by 1¾in	70/- do.
1in mild steel reinforcing rods ex mill d/d	£41/9/0 do.
Extras per ton	
⅜in or ½in diameter in size	15/- per ton
⅝in	30/- do.
¾in	62/6 do.
⅞in	92/6 do.
1in	132/6 do.
1¼in	172/6 do.
Extras for length	
5ft to 3ft	7/6 do.
3ft to 2ft	15/- do.
2ft	22/6 do.
40ft to 45ft	15/- do.
45ft to 50ft	22/5 do.
Bolt and Nuts	112/- per cwt
Trench covering, including trays 1¼in deep and rebated frames, 9in wide	25/- foot run
Do., but 12in wide	27/- do.
Do., but 14in wide	30/- do.
Do., but 18in wide	39/- do.

METAL SUNDRIES

Cast iron pavement lights with 4in by 3in prism and convex lenses in alternate rows	33/- per ft super
Iron single fire doors, panelled both sides, pivot hung and self closing, to angle frame rebated and lugged, to meet fire regulations	54/- do.
24 guage galvanized Tallboy 6ft high, 9in diameter with 9in by 12in base	55/- each

CHAIN LINK FENCING—

In 25 yards lineal rolls inclusive of line wire.

2in mesh	Height in inches— 36	42	48	60	72
10½in wire gauge	129/-	150/6	172/-	215/6	258/3
12½ do.	90/-	104/9	119/9	149/9	179/9
14½ do.	62/9	73/6	83/6	104/9	125/6

DOUBLE SOOT DOORS AND FRAMES—

Fitted with brass turn-buckle and cast key	9in by 9in	12 in by 9in	14in by 12in
	21/6	31/3	54/-

SLIDING DOORS, GATES AND PARTITIONS—

Factory sliding doors in two leaves containing about 100sq ft with mild steel angle frames covered with 24 gauge corrugated galvanized sheeting and including hanging tubular track and gear complete	18/6 ft super
Factory entrance gates with mild steel frames clad with 2in mesh chain link complete	16/6 do.

STEEL ROOF LIGHTS—

In Skylights and Lanterns, Standard type with puttyless glazing, lead flashings, and ¼in rough cast glass; in the case of Lanterns 18in vertical sashed sides are provided in addition.

Size at Base	6ft by 4ft	8ft by 6ft	10ft by 8ft
Skylights	£35 5	£50 10	£69 10
Lanterns	£55	£76 5	£110

HIGH GRADE DOMESTIC BOILERS—

Coke Fed. Performance 20 to 40 gallons raised from 40°F to 140°F per hour as under.

TYPE		£ s. d.
20 gallons per hour 15in wide, 23in high	Enamel finish	11 10 0
25 gallons per hour 17in wide, 26in high	Do. Grey Mottle	20 10 0
	Do. Cream Mottle	22 0 0
40 Gallons per hour 22in wide, 30in high	Do. Cream Mottle	38 0 0

GAS, WATER AND STEAM TUBES

BASIC PRICES

Internal Diameter—	⅛in & ¼in	⅜in	½in	¾in	1in	1¼in	1½in	2in
Tubes per ft	9¾*d*	10*d*	1/-	1/2½	1/9	2/3	2/8	3/9
Bends each	1/7	1/9	2/-	2/6	3/8	5/5	6/2	10/7
Elbows, sq. do.	1/8	1/10	2/2	2/6	3/-	4/4	5/2	8/6
Do., round do.	1/10	2/-	2/4	2/10	3/4	4/8	5/8	9/4
Tees do.	2/-	2/2	2/6	3/2	3/8	5/-	6/2	10/2
Crosses do.	4/4	4/8	5/6	6/6	8/2	11/-	13/2	21/-
Backnuts do.	4*d*	4*d*	6*d*	7*d*	10*d*	1/-	1/4	2/2
Sockets do.	6*d*	6*d*	8*d*	10*d*	1/-	1/4	1/9	2/6
Sockets dimin. do.	8*d*	10*d*	1/-	1/2	1/6	2/-	2/8	4/-

EX. STOCK IN ORDERS OF £10 OR MORE

DISCOUNTS OFF BASIC LIST.

TUBE—

Black	Galvanized
Medium (Blue)—35%	Medium—25%
Heavy (Red) —25%	Heavy —15%

FITTINGS—

Black	Galvanized
Heavy —10%	Heavy —2½%

RAINWATER GOODS (Painted or Unpainted

In consignments of 5cwt and over

From Standard List

Pipe:		2in	3in	4in	5in	6in
6ft lengths	each	12/10	14/5	18/11	24/8	31/6
3ft do.	do.	7/-	7/9	10/-	13/1	16/6
Shoe, ordinary	do.	2/7	3/10	5/7	9/5	12/11
Bend	do.	3/1	4/4	6/4	11/3	14/7
Branch, single	do.	4/6	6/7	9/3	14/7	22/6
Offset, 4½in	do.	3/9	5/3	7/9	12/11	17/-
Do. 9in	do.	4/11	6/6	9/8	15/3	19/3
H.R. gutter, 6ft length	do.	—	6/-	8/5	10/4	13/10
Angle or nozzle	do.	—	2/6	3/1	3/9	5/4
Stop end	do.	—	9*d*	1/1	1/6	1/9

Above plus 22½%

CURRENT MARKET PRICES (Continued)

PLASTERING MATERIALS

Sand, lime, cement and various plasters are previously included under those heads—

Metal lathing (¾in by 24G) (20 yards)		4/- sq yard
Plaster baseboard ⅜in (1,200 yards) ex works		2/4 do.
Lath nails, galvanized		1/11 lb
White glazed tiles (6in by 6in by ¼in)	small quantity	25/3sq yard
Do. rounded on one edge	small quantity	30/6 do.
Do. on two adjoining edges	small quantity	33/9 do.

PLUMBER'S GOODS

4lb lead sheet (in 1-ton lots)	109/3 per cwt
Lead water pipe in coils (do.)	111/6 do.
Plumber's solder	3/7 lb
Copper tacks	8/5 do.

IRON SOIL AND WASTE PIPE. (5cwt lots and up)

each	2in	3in	3½in	4in
⅛in Medium pipe, 6ft length	14/6	17/2	19/3	21/11
Do., 4ft length	10/5	12/2	13/7	15/5
Bends	5/4	6/6	8/1	9/1
Do., with oval door	17/4	18/6	21/1	24/7
Junction, single	6/6	9/8	11/3	13/3
Do., with oval door	18/6	21/8	24/3	26/3
Swan necks, 4½in	6/6	10/3	11/9	13/9
Do., 9in	8/8	11/9	13/9	16/1
Holderbat, 2½in projection	5/9	5/11	6/3	6/4

Above plus 22½%

GALVANIZED CISTERNS, TANKS AND CYLINDERS—

(Less than three)

each	gallons			
CISTERNS	Nominal capacity			
Bends over tops and corner plates. Riveted or welded	100	150	200	300
14 gauge	162/-	246/-	309/-	427/-
12 gauge	197/-	305/-	360/-	485/-
¼in plate	225/-	356/-	418/-	568/-
HOT WATER TANKS				
Riveted and with hand hole and ring	20	25	30	40
12 gauge	147/-	151/-	164/-	190/-
¼in plate	161/-	168/-	184/-	211/-
HOT WATER CYLINDERS—				
Riveted, with handhole and ring	20	25	33	39
12 gauge	167/-	182/-	203/-	219/-
¼in plate	180/-	200/-	224/-	240/-

PLUMBER'S BRASSWORK, etc.

Each	¼in	⅜in	1in	1¼in
Boiler screws, single nut	1/7	2/1	3/4½	5/9
Do., double nut	2/3	2/10	5/4	7/6
Cap and lining	1/2	1/7	1/11	2/1
Plumber's unions	2/5	3/-	4/1	7/3
Ball valves, screwed iron	13/11	21/9	—	—
Do., fly nut and union	14/11	23/3	—	—
Bib valves, crutch top screwed iron	8/6	12/6	—	—
Do., but screwed boss	9/8	14/2	—	—
Stop valves, screwed iron	7/6	10/3	—	—
Do., screwed iron and union	9/3	13/6	27/9	—
Do., double union	10/6	15/-	30/-	—
Waste, plug chain and stay	—	—	8/6	9/6
	1½in	1½in	2in	4in
Caps and screws	4/6	5/6	7/-	—
Sleeves, long	—	—	7/6	10/10
Do., short	—	4/-	4/2	8/4
Thimble	—	3/9	4/10	10/4
Full way gate valves, hot pressed	21/-	29/3	—	—
		1½in	1½in	2in
Lead 7lb P. trap		6/11	9/-	12/8
Do., S. trap		8/5	11/1	15/7
Lead 6lb P. traps with 3in seal		7/8	9/3	—
Do., but S. traps, do.		9/6	11/7	—

Wire balloon guards, copper, 2in, 2/7; 4in 4/4
Do., galvanized iron, 2in 1/4; 4in 1/8
Hair felt 34in by 30in, 24oz, 6/- sheet
Boss white jointing compound, 2/3lb
Gasket 1/10½lb. Hemp, 9/-lb.

COPPER TUBES—Extract from B.S. 659/1955—

Nominal bore	Internal work (semi-hard). Outside diameter	Gauge	Weight lb per ft	3cwt lots Price per lb pence	Price per ft pence
⅛in	0.596	19	0.27	45½	12.19
¼in	0.846	19	0.39	43¾	16.92
1in	1.112	18	0.62	41¾	25.97
1¼in	1.362	18	0.76	41½	31.35
1½in	1.612	18	0.91	41½	37.54
2in	2.128	17	1.40	42⅞	60.03

CAPILLARY TYPE CONNECTIONS—

Add for delivery and packing on orders under £10.

All ends copper to copper

Each	¼in	⅜in	1in	1¼in	1½in	2in
Straight	1/5½	1/10½	2/10½	4/0½	8/0½	11/6½
Elbow	3/4	4/1½	5/6½	8/7½	13/11½	28/6
Tees	4/1½	4/8	6/9½	11/3½	19/4½	28/6
Brackets (Brass)	2/10½	3/5	3/10½	4/0½	6/5½	7 6½

GLASS

	Per foot superficial 24oz	26oz	32oz
English, flat drawn sheet glass cut to sizes in squares	10½d	1/1½	1/5½
Figured rolled, white cut to sizes, in squares (¼in) Group 1	1/1½d	Per ft super	
Group 2	1/4½	do.	
Ditto, but in standard tints	1/10	do.	
⅛in Rolled, cut to size, in squares	1/1½d	do.	
¼in rough cast do.	1/5½	do.	
¼in do. wired do.	1/9½	do.	
Georgian wired do.	1/9½	do.	
Fluted (No. 4) do.	1/11½	do.	
⅛in Reeded	2/3	do.	
⅛in Reedlyte (narrow and broad) do.	1/6	do.	
Spotlyte do.	1/6	do.	
⅛in Calorex Cast do.	1/8	do.	
Flashed Opal (15/18oz) up to 1ft super	4/2	do.	
do. do. over 1ft super	5/-	do.	
Pot Opal (15/18oz) up to 1ft super	4/2	do.	
do. do. over 1 ft super	5/-	do.	

POLISHED PLATE GLASS (Tariff) Cut to sizes.

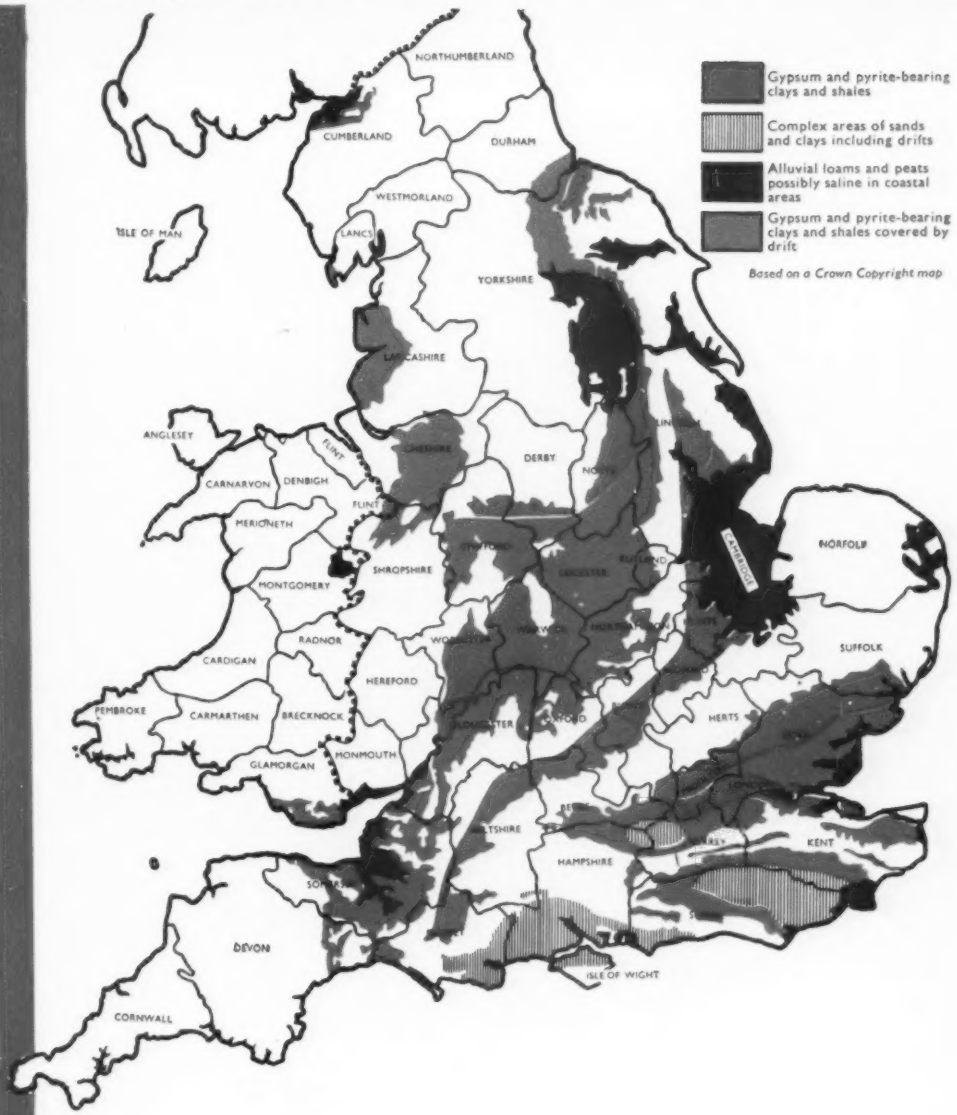
Ordinary substance ⅛in and ¼in thick.

Per Superficial ft	General Glazing
In plates not exceeding:	
2ft super in each	4/7
5ft do.	5/7
45ft do. (unless extra sizes)	6/9
100ft do. (do.)	7/4

Extra sizes, i.e., Plates exceeding 100ft super or 160in one way or 96in both ways at higher prices.

DECORATING MATERIAL

	Price	Unit
Aluminium Paint	42/-	Gallon
Distemper, ceiling	39/-	Cwt
Distemper, washable	120/-	do.
Enamel (eggshell)	52/-	Gallon
Gold Metallic Paint	79/-	do.
Heat Resisting Paint	40/-	do.
Japan, black	35/-	do.
Knotting	40/-	do.
Linseed Oil (5gal)	16/9	do.
Boiled, do. (do)	17/6	do.
Proprietary Paints (good class)—		
Finishing	57/6	do.
Priming (lead base)	57/6	do.
Undercoat	59/-	do.
Paperhanger's Paste	36/6	Cwt
Petrifying liquid	9/6	Gallon
Putty	58/4	Cwt
Size	12/3	Firkin
Terebine	22/-	Gallon
Turpentine substitute	6/5	do.
Varnish, oak, copal inside use	39/-	do.
Do., do., outside use	41/-	do.
Do., white, eggshell, flat	50/-	do.
White lead mixed paint	66/6	do.
White lead	167/€	Cwt
Whiting	13/3	do.



Where sulphates are likely in sub-soil or ground water – use

TUNNEL

Sulphate Resisting

PORTLAND CEMENT

THE TUNNEL PORTLAND CEMENT COMPANY LIMITED · LONDON ·

A TUNNEL PRODUCT

THE TUNNEL PORTLAND CEMENT CO. LTD, 105 Piccadilly, London, W.1. Tel: GROsvenor 4100

CVS16

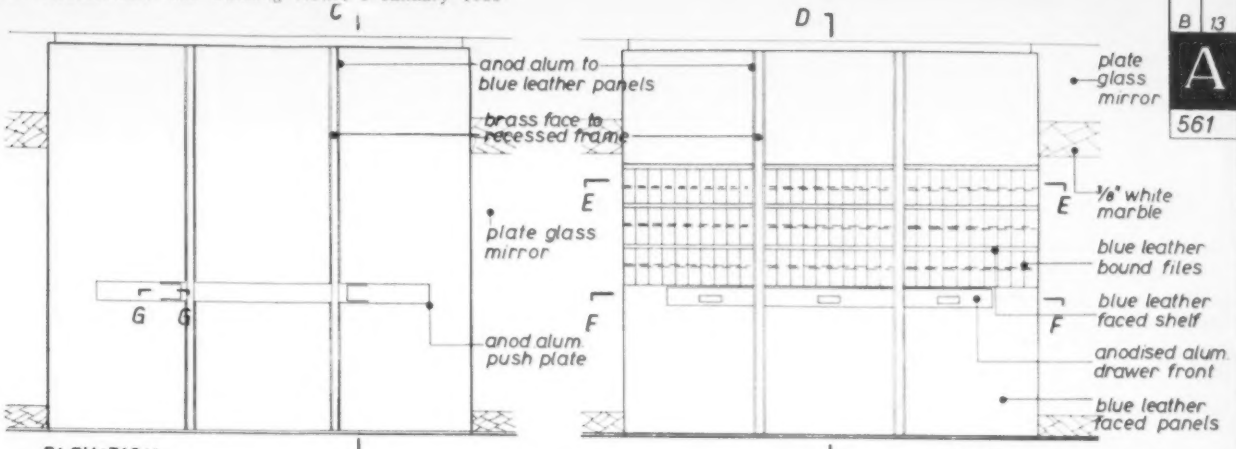
G

Look for this trade mark!

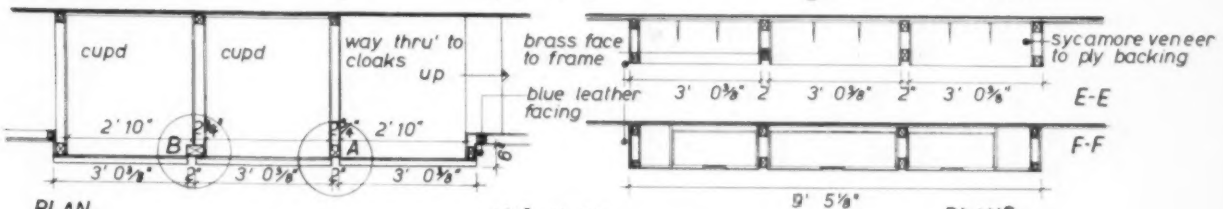
Europe's producers of the largest range of wood-based sheet materials present PANDA BOARD. An all-wood fibre hardboard possessing 30% higher density and nearly double the strength required by British Standard.

PANDA BOARD plain and perforated. *Full details from:—*

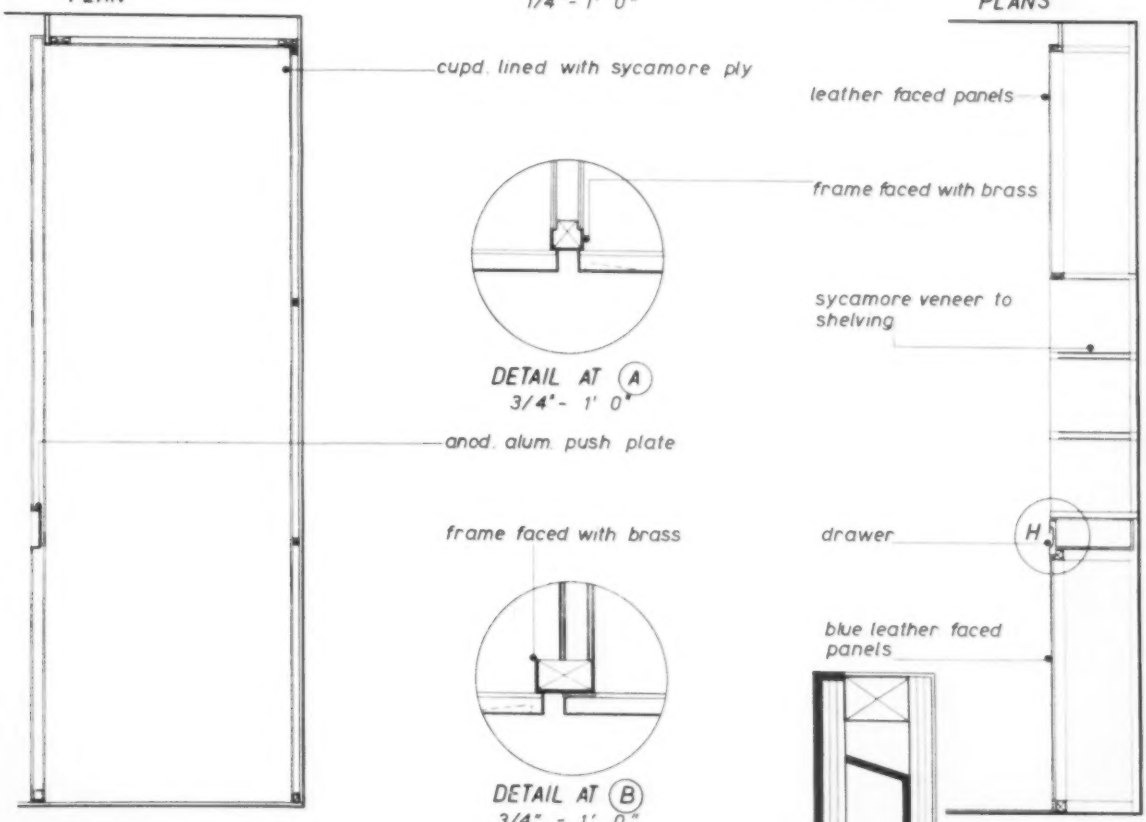
Sole Agents for U.K. and Ireland: **PHARAOH'S PLYWOOD CO. LTD.**
ADELAIDE HOUSE, LONDON BRIDGE, LONDON, E.C.4. Telephone: MANsion House 5351 (6 lines)
Manufactured by:— **OY WILH. SCHAUMAN AB,** JYVÄSKYLÄ, FINLAND



ELEVATION C 1/4" - 1' 0" D ELEVATION



PLAN 1/4" - 1' 0" PLANS

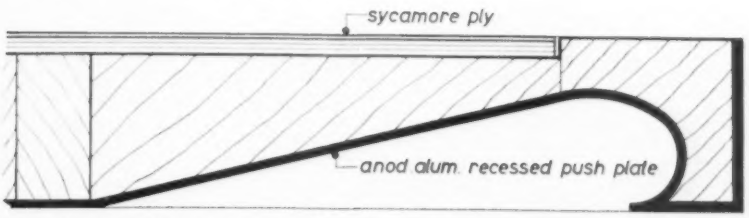


DETAIL AT (A) 3/4" - 1' 0"

DETAIL AT (B) 3/4" - 1' 0"

SECTION C-C 1/2" - 1' 0"

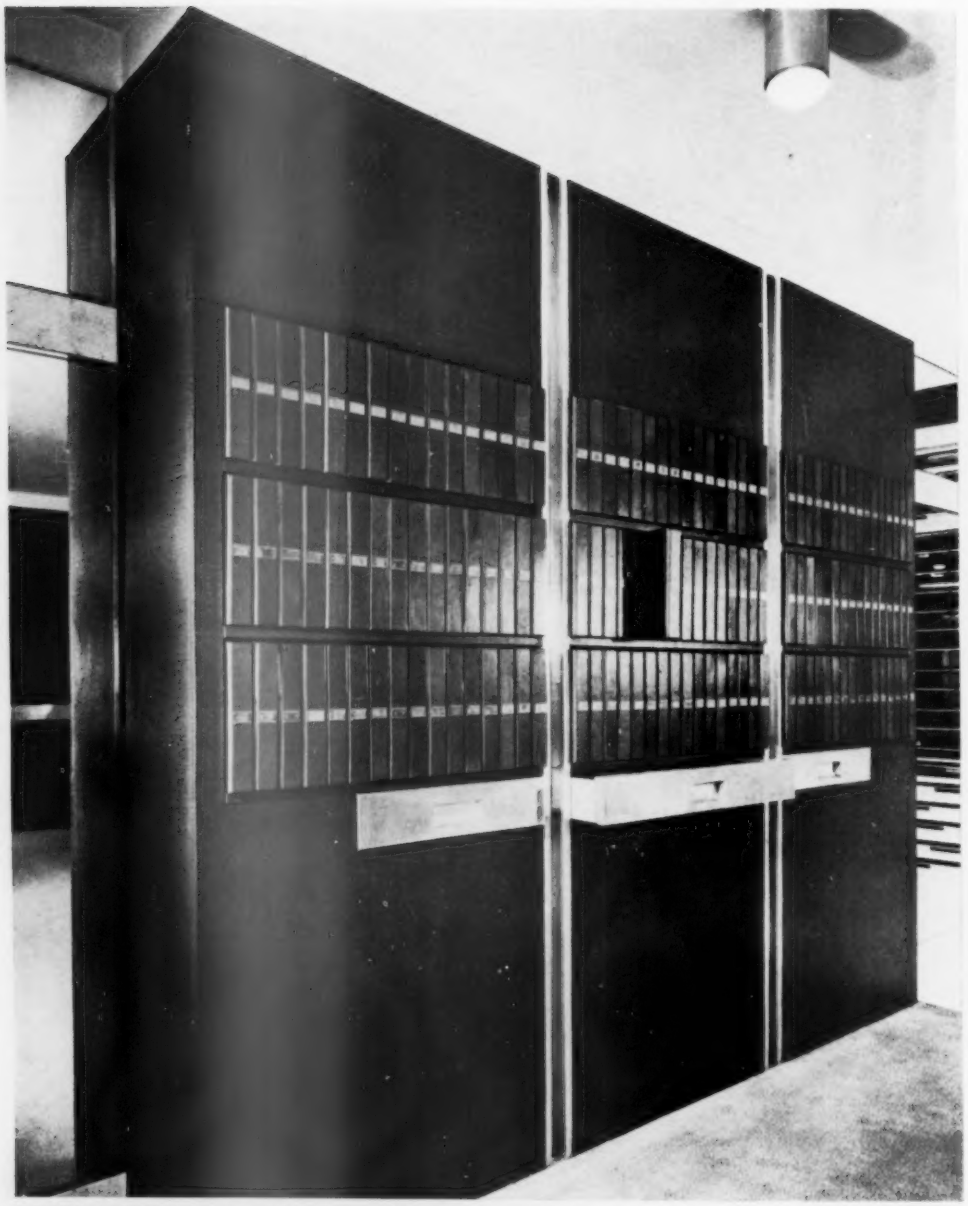
SECTION D-D 1/2" - 1' 0"



PLAN ON G-G 1/2 F.S.

SECTION AT (H) 1/2 F.S.

CUPBOARD LIBRARY FITTING SHOWROOM FOR BRITISH NYLON SPINNERS KNIGHTSBRIDGE LONDON DENNIS LENNON



The framing to these cupboards and shelves in the British Nylon Spinners showroom in Knightsbridge is faced with brass. The cupboard doors and panels below and above the shelving are faced in blue leather with anodised aluminium edge strips. The files of the cloth index library are also bound in blue leather. Door and drawer handles are in anodised aluminium on plywood. The architect is Dennis Lennon.

CUPBOARD, LIBRARY FITTING, SHOWROOM FOR BRITISH NYLON SPINNERS, KNIGHTSBRIDGE

CONTRACT • NEWS •

*Notes below give basic data of contracts open under locality and authority which are in a bold type. References indicate: (a) type of work (b) address for application. Where no town is stated in the address it is the same as the locality given in the heading (c) deposit (d) last date of application (e) last date and time for submission of tenders. Full details of contracts marked * are given in the advertisement section.*

OPEN

BUILDING

ABERCARN U.C. (a) Construction of 152 houses at Trinant housing site, Crumlin. (b) Engineer, Council Offices, Abercarn. (c) 3gn. (e) January 26.

* * *

BATLEY B.C. (a) Erection of 16 lock-up brick garages in two estates. (b) Borough Engineer, West House, Hanover Street. (e) January 18.

* * *

BATLEY B.C. (a) Internal decoration of the small swimming bath and shower baths attached at the public baths, Cambridge Street. (b) Borough Engineer, Hanover Street. (e) January 11.

* * *

BLAYDON U.C. (a) Erection of 30 single-storey aged persons' bungalows at Smailes Farm site, Rowlandsgill. (b) Clerk of the Council, Council Offices, Blaydon-on-Tyne. (e) January 23.

* * *

BLETCHLEY U.C. (a) The Council is about to commence a large programme of building and civil engineering work for the reception of population and industry from the Greater London area. Work is likely to comprise the erection of some 1,500 dwellings, shops, factories and other buildings. Tenders will be by invitation from approved list of contractors and will be divided into different categories according to size of contracts, which are expected to range from £10,000 to £500,000. Firms should make firm application for the particular types and classes of work for which they are best suited. (b) J. F. Smithies, Engineer and Surveyor, Council Offices. (d) January 15.

* * *

BLYTH B.C. (a) Housing scheme 36. Erection of ten flats and maisonnettes in Coomassie Road. (b) Borough Engineer, Municipal Buildings, Seaforth Street, Blyth, Northumberland. (c) 2gn. (e) February 8.

* * *

BOGNOR REGIS U.C. (a) Improvements to council houses in three separate contracts. (1) 47 houses, Collyer Avenue. (2) 40 houses, Hampshire Avenue and Gravits Lane. (3) 29 houses in Westcoats Lane and Gardens. (b) Engineer and Surveyor, Town Hall. (c) 2gn each contract. (e) January 11.

* * *

BOURNEMOUTH B.C. (a) Fixed-price basis tenders. Extensions to St. Michael's School, West Hill Road, stages 1 and 2. (b) Borough Architect's Office, Room 106, Town Hall. (c) 2gn. (e) January 11.

* * *

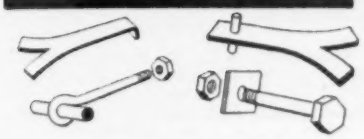
BRIGHTON. (a) Alterations and additions to Brighton Public Abattoir. (b) Borough Surveyor, Engineer and Planning Officer, 26-30 King's Road, Brighton. (c) 2gn. (e) January 14.

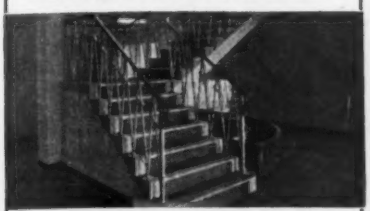
* * *

BURY B.C. (a) Alterations and adaptations to the Public Library. (b) Borough Engineer, Town Hall. (c) 2gn. (e) January 11.

MULLEN AND LUMSDEN LIMITED
Contractors and Joinery Specialists
41 EAGLE STREET, HOLBORN
LONDON, W.C.1
Telephone: CHAncery 7422/3/4
Branches:
5 Coptic Street, W.C.1. Tel.: Museum 3705
Southampton Tel. No. 73176

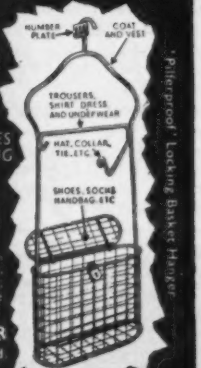
A. & P. STEVEN LTD
"APS" LIFTS
181 ST. JAMES RD., GLASGOW, C.4
Tel. Bell 0356
LONDON: 10 Nicholson Street, S.E.1. Tel. Waterloo 4465
MANCHESTER, 1: 3 Charles St. Tel. Ardwick 1391
EDINBURGH, 2: 2 North West Circus Place. Tel. Caledonian 2095
BIRMINGHAM, 20: Henley Lodge, 19 Church Lane, Handsworth Wood. Tel. Northern 0284

NON FERROUS
WALL TIES & MASONRY FIXINGS

S. J. BRIERLEY (WILTS) LTD
BRADFORD-ON-AVON
Telephone 2234

BALUSTRADES

HOTCHKISS ENGINEERS LIMITED
EASTBOURNE · Tel. 2424. 7 lines

WOODWORM & DRY ROT
Eradicate wood-destroying insects and fungi from roof and cellar timbers, flooring and joinery by means of
WYKAMOL
Wood Borer Insecticide
RESKOL
Dry Rot Fungicide
Write for full particulars of these completely effective materials and specialist survey and guaranteed treatment services. Pressure spray apparatus for the application of our materials is available for hire at nominal rates.
RICHARDSON & STARLING LTD
(Dept. A.B.N.), 6 Southampton Place, W.C.1

THOMAS CRAPPER & CO., LTD.
Merchants of Sanitary Appliances
Kitchen Equipment and Plumbing Fittings
Catalogue on request
120 KINGS ROAD, S.W.3. KEN. 4831

SIEBER FOR...
A '7 STAR' LOGICAL CLOAKROOM
* SAVES SPACE
* SAVES COST
* PRESERVES GARMENTS
* ENSURES HYGIENE
* AIRS AND DRIES WET CLOTHING
* REDUCES ABSENTEEISM
* MEETS NEW FACTORY ACT


Installed in Factories, Stores, Offices, Swimming Baths, etc., throughout the country.
JAMES SIEBER Equipment Co. Ltd
Africa House, Kingsway, London, W.C.2. Tel: Holborn 4531/5121

BURY ST. EDMUNDS B.C. (a) Erection of 19 houses in Oliver Road. (b) Borough Engineer and Surveyor, Borough Offices. (c) 2gn. (e) January 18.

* * *

BURTON-ON-TRENT B.C. (a) Erection of 150 dwellings and 30 garages of traditional construction on Edge Hill housing estate. (b) Borough Architect, Town Hall. (c) 2gn. (e) January 21.

* * *

CAMBRIDGE C.C. (a) Erection of a science laboratory, drawing office and ancillary works, comprising 2,250 sq ft floor area in permanent construction at Young Street Further Education Centre. (b) City Surveyor, Guildhall. (c) 2gn. (e) February 12.

* * *

CHERTSEY U.C. (a) Erection of 20 maisonnettes at Green Lane, Addlestone, with roadworks, etc. (b) Engineer and Surveyor, Council Offices. (c) 2gn. (e) January 18.

* * *

CROYDON B.C. (a) Erection of three detached six-bedroom children's homes at Shrublands, Ashburton and Longheath estates. (b) Borough Engineer, Town Hall. (e) January 20.

* * *

EASTBOURNE B.C. (a) Construction of a small extension to the existing kitchen at Chelsea College of Physical Education, Carlisle Road, with some minor alterations. (b) Borough Surveyor, 2-4 Saffrons Road. (c) 2gn. (d) January 6. (e) February 10.

* * *

EAST RIDING OF YORKSHIRE C.C. (a) (1) Erection of an assembly hall and kitchen, together with alterations to existing school at North Ferriby. (b) County Architect, County Hall, Beverley. (c) £2. (e) February 2. (2) Additional practical and cloakroom accommodation at Withernsea High School. (b) County Architect, Beverley. (c) £2. (e) February 9.

* * *

EIRE—CO. GALWAY. (a) Erection of a new secondary school and new hostel at Carna, Co. Galway, for the Sisters of Mercy. (b) Desmond MacGreevy, 4 Merrion Square, Dublin. (c) 20gn. (e) January 22.

* * *

EIRE—CO. MAYO. (a) Erection and completion of the proposed St. Patrick's Monastery N.S. at Castlebar, Co. Mayo, for Very Reverend W. Nobilly Adm. (b) Mr. Thos. D'arcy, 28 Merrion Square, Dublin. (c) 10gn. (e) January 16.

* * *

FELLING U.C. (a) Erection of 12 permanent traditional bungalows and construction of other appurtenant works on land at Falla Park Road. (b) Surveyor, Council Buildings. (c) 2gn. (e) January 13.

* * *

GODSTONE (SURREY) R.C. (a) Erection of four blocks all in two storeys comprising 12 housing units at South Nutfield. (b) Engineer and Surveyor, Council Offices, Oxted, Surrey. (c) 2gn. (e) January 20.

ISLE OF ELY C.C. (a) Isle of Ely College and Horticultural Institute, Wisbech Horticultural Station. (1) Buildings and Meadowgate Lane, comprising erection of a pig and poultry unit, approx. 180ft by 30ft; a pair of semi-detached houses; completion of implement building (frame and roof erected under separate contracts); construction of concrete access road. Buildings will be in load-bearing brickwork with pitched roofs. (2) Erection of and glazing an aluminium alley glasshouse, overall size 157ft by 30ft. The components are being supplied and delivered early in March under a separate contract. (b) County Architect, County Hall, March, Cambs, giving details of work recently executed by them. (c) 2gn. (d) January 9. (e) February 9.

* * *

LIVERPOOL C.C. (a) Construction of public laundry and baths, St. Domingo Road, Liverpool, 5. (b) City Architect and Director of Housing, Blackburn Chambers, Dale Street, Kingsway, 2. (c) 2gn. (e) January 14.

* * *

NORTHERN COUNTIES TRAINING COLLEGE. (a) Erection of five blocks of three-storied buildings having a floor area of 13,250 sq ft on an 11 acre site fronting Coach Lane, Benton, Newcastle-on-Tyne. Work to begin in April and be completed in two years. (b) Secretary to the Governors, City Education Office, Northumberland Road, Newcastle-on-Tyne. (d) January 21.

* * *

READING B.C. (a) Erection of six shops with maisonnettes, 12 garages and two public conveniences, and one block of four one-bedroom flatlets all in traditional construction on Whitley estate. (b) Borough Architect, Town Hall. (c) 2gn. (e) January 15.

* * *

SALFORD. (a) Erection of a R.C. secondary school at Bradfield Road, Urmston, for the Salford Roman Catholic Diocesan Trustees. Registered. Cost: about £104,000. (b) Mather & Nutter, architects, 3 Chepstow Street, Manchester, 1. (d) January 8.

* * *

SELKIRK B.C. (a) Erection of 55 three-apartment permanent houses comprising 16 blocks at Bannerfield site. (b) Town Clerk. (e) January 18.

* * *

SEVENOAKS R.C. (a) Erection of one block of four flats at Deanery Road, Crockham Hill. (b) Engineer and Surveyor, Inglewood, Oak Hill Road, Sevenoaks. (c) 2gn. (e) January 26.

DEXTER
LOCKSETS
Speedy fixing
No visible screws
Unique designs

Inquiries to:
E. & J. FLEMING
30 CITY ROAD, LONDON, E.C.1 (MON 4881)

SITTINGBOURNE AND MILTON U.C. (a) Erection of 94 garages on council housing estates. (b) Engineer and Surveyor, 89 London Road. (c) 3gn. (e) January 11.

* * *

SUNDERLAND R.C. (a) Erection of four aged persons' bungalows on Cranborne Woodside estate, East Herrington. (b) Surveyor, The Esplanade, Sunderland. (c) 1gn. (e) January 14.

* * *

TAUNTON B.C. (a) Erection of 22 traditional dwellings with external works on Lane estate. (b) Borough Architect, Flook House, Station Road. (c) 2gn. (e) January 26.

* * *

TAVISTOCK R.C. (a) Alterations to Council Offices, Kilworthy Hill. (b) Rossington & Fogden, Drake Road, Tavistock. (c) 2gn. (e) January 14.

* * *

VALLEY R.C. (a) Erection of 50 Unity traditional dwellings with roads and sewerage at Tan y Bryn Valley. (b) Clerk, Council Offices, Valley, Holyhead. (c) 3gn.

* * *

WALTON AND WEYBRIDGE U.C. (a) Erection of 12 bed-sitting room flats and eight one-bedroom flats in four blocks at Queen's Road (Hersham) site. (b) Engineer and Surveyor, Council Offices, Walton-on-Thames. (e) January 28.

* * *

WIGAN B.C. (a) Erection of traditional dwellings. 13 type E.1 three-bedroom houses at end of blocks. 21 type E.2 three-bedroom houses in middle and at end of blocks. Eight type F.1 corner blocks comprising two flats. (b) Borough and Water Engineer, Municipal Buildings. (c) 2gn. (e) February 1.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

ABINGDON B.C. (1) Erection of 44 dwellings. (2) Gainsborough Green. (3) R. C. Mount (Builders) Ltd., Quarry Road, Headington, Oxford. (4) £68,919.

* * *

ASHINGTON U.C. (1) Erection of 64 flats. (2) Sixth Avenue. (3) Direct labour. (4) £76,802.

* * *

BOLTON. (1) Rebuilding stores premises for George H. Lavey & Co. Ltd. (3) John Dickinson & Co. (Bolton) Ltd., Fairclough Street, Bolton. (4) £32,000.

* * *

BURNLEY B.C. (1) Erection of St. Theodore's R.C. Secondary School. (3) Ashton Smethurst (Builders) Ltd., Suffield Street, Middleton, Manchester.

'SYSTON' Rolling Shutters
MANUFACTURED IN STEEL, WOOD & ALUMINIUM
GALVANISED SHUTTERS AND SERVERY
HATCHES TO SUIT ALL REQUIREMENTS
SHUTTER CONTRACTORS TO WAR DEPARTMENT AND AIR MINISTRY
J. TAYLOR (SYSTON) LTD. · SYSTON · LEICESTER
TELEPHONE: SYSTON 2133 · MANCHESTER OFFICE: RINGWAY 3996

FIBROUS PLASTERWORK
OF EVERY DESCRIPTION
ALLIED GUILDS
King Edward Square
SUTTON COLDFIELD Tel.: Sut 3809

CARDIFF C.C. (1) Erection of 67 houses. (3) Geo. Wimpey & Co. Ltd., Newport Road, Cardiff. (4) £122,985. (1) 66 flats. (3) Rosser Thomas & Co. Ltd., Cardiff. (4) £131,705.

* * *

CHESTERFIELD B.C. (1) Erection of 52 houses. (2) Westwood Lane. (3) Geo. Wimpey & Co. Ltd., Hammersmith, W.6.

* * *

DARLINGTON B.C. (1) Erection of 172 houses. (2) Lingfield estate. (3) F. Shepherd & Sons, Blue Bridge Lane, York. Negotiated tender.

* * *

DURHAM C.C. (1) Erection of modern school. (2) Newton Aycliffe. (3) Bell & Ridley Ltd., North Road, Durham. (4) £145,949.

* * *

ESSEX C.C. (1) Extensions and other works at Brook County Secondary School. (2) Loughton. (3) S. Cronin & Sons Ltd., 142 Warley Hill, Brentwood, Essex. (4) £110,000.

* * *

EXETER C.C. (1) Beacon Lane estate. Group 16. 106 dwellings. (3) E.B.C. & Sleeman Ltd., Colleton Mews, Melbourne Street, Exeter. (4) £187,930. Group 17. 84 dwellings. (3) Staverton Contractors Ltd., Totnes, Devon. (4) £134,004. Group 18. 50 dwellings. (3) Woodman & Son (Builders) Ltd., 4 Bartholomew Street East, Exeter. (4) £73,934.

* * *

HALIFAX. (1) Erection of four-storey building with shopping area on ground floor, for O. & C. Estates Ltd., Halifax. (2) Palace Theatre site. (3) William Townson & Son Ltd., Bolton.

* * *

HASTINGS. (1) Erection of ten shops and 14 flats. (2) Castle Street. (3) Llewellyns (Hastings) Ltd., 79 Davies Street, London, W.1. (4) £68,959.

* * *

HEREFORD C.C. (1) Erection of 112 houses and ten aged persons' bungalows. (2) Redhill estate. (3) H. Vaughan, 1 Cumbrae Avenue, Hereford. (4) £171,966.

* * *

ISLE OF MAN. (1) Erection of Castle Rushden School. (2) Castletown. (3) McCormeck & Davies Ltd., Douglas, I. of M. (4) £156,195.

* * *

ISLINGTON B.C. (1) Erection of 36 dwellings. (2) Oakley Crescent. (3) Gee, Walker & Slater Ltd., 100 Park Lane, W.1. (4) £74,079.

* * *

LEEDS. (1) Erection of a seven-storey office block for The London and Lancashire Insurance Co. Ltd. (2) South Parade, 1. (3) William Irwin & Co. Ltd., Burley Road, Leeds, 3.

'PUDLO'
Registered Trade Mark
BRAND
CEMENT WATERPROOFING POWDER
USED IN PORTLAND CEMENT CONCRETE AND RENDERINGS TO EXCLUDE OR RETAIN WATER
WRITE FOR DIRECTIONS BOOK
To:
KERNER-GREENWOOD & CO., LTD.
KING'S LYNN
Sole Proprietors and Manufacturers
THE MOST RELIABLE FIRE CEMENT IS 'FEUSOL'—have you tried it?

STRUCTURAL FIRE PROTECTION—
DURASTEEL 3DF2
Composite Steel-&-Asbestos Sheets

● PARTITIONS
● FIRE RESISTING DOORS
● LIFT SHAFT ENCLOSURES
Send for data
Telephone: WAXlow 1051
DURASTEEL LTD.
OLDFIELD LANE, GREENFORD, MIDDLESEX
Suppliers to ADMIRALTY, G.P.O., CENTRAL ELECTRICITY AUTHORITY, Etc.

TERRAZZO in situ or Precast
TOILET PARTITIONS & Posts
STAIRCASE Treads, Risers, etc.
GLASS, CERAMIC & MARBLE MOSAIC
VENTOR TERRAZZO & MOSAIC CO., LTD.
FAIRFAX WORKS, 156/158 FAIRFAX ROAD, GREEN LANES, LONDON, N.8 MOUntview 2229 (2 lines)

A. W. BAKER
WALL AND FLOOR TILING
CONTRACTORS AND MERCHANTS
Service, Satisfaction and Personal Supervision
68 HEREFORD RD., FELTHAM, MIDDLESEX
Telephone: FELTHAM 3941

LONDON, CITY. (1) Main construction works. (2) Billingsgate Market. (3) C. J. Sims Ltd., 2 Victoria Street, London, S.W.1. (4) £143,938.

* * *

LONDON, S.E. (1) Construction of an area training centre. (2) Gas Works in the Old Kent Road, S.E. (3) J. Garrett & Son Ltd., Cathies Road, London, S.W.12. (4) £150,000.

* * *

NEWCASTLE-UNDER-LYME R.C. (1) Erection of 41 dwellings with roads and sewer works. (2) Loggerheads. (3) G. Minshall & Co. Ltd., Waterloo Road, Cobridge, Stoke-on-Trent. (3) £60,527.

* * *

NEWCASTLE-ON-TYNE C.C. (1) Extensions comprising a new quay 640ft long. (2) Bowcastle Quayside. (3) Sir Robert McAlpine & Sons Ltd., 81 Jesmond Road, Newcastle-on-Tyne. (4) £735,000.

* * *

NORTHERN IRELAND—HOUSING TRUST. (1) Erection of multi-storey flats. (2) Cregagh Road-Mount Merrion Avenue. (3) Unit Construction Co. Ltd., 34 St. James's Street, London, S.W.1.

* * *

OXFORD C.C. (1) Erection of two 15-storey blocks of flats. (2) Blackbird Leys estate. (3) City Architect is negotiating a price with John Laing & Son Ltd., Mill Hill, London, N.W.7.

* * *

OXFORD C.C. (1) Erection of 84 houses. (2) Blackbird Leys estate. (3) C. Bryant & Son Ltd., Whitmore Road, Birmingham, and Oxford. (4) £148,802.

* * *

PORTSMOUTH C.C. (1) Erection of 72 flats and maisonnettes. (2) Furze Lane. (3) Henry Jones & Son (Portsmouth) Ltd., 35 Aldwell Street, Portsmouth. (4) £141,163.

* * *

READING. (1) Erection of National Laboratory of Sedimentalogy at Reading University. (2) White-Knights Park. (3) Collier & Gatley, Kings Meadow Road, Reading. (4) £200,000.

* * *

SHEFFIELD REGIONAL HOSPITAL BOARD. (1) Erection of radiotherapy department. (2) St. George's Hospital, Lincoln. (3) C. R. Price Ltd., Barnsley Road, Doncaster. (4) £109,399.

* * *

SPENBOROUGH B.C. (1) Erection of 48 maisonnettes and flats. (2) Brooklyn Street, Cleckheaton. (3) N. B. Bell & Co. Ltd., Frankland Terrace, Leeds, 7. (4) £63,760.

* * *

STOCKTON-ON-TEES B.C. (1) Erection of 55 houses. (2) Hardwick estate. (3) Richard Costain Ltd., 16 Great North Road, Newcastle-on-Tyne. (4) £78,000.

DANAURA Blinds
THE MODERN VENETIANS
Full particulars, drawings, etc., from
DANAURA LIMITED
48 Notting Hill Gate, London, W.11
BAYswater 8721/2

Specialists in
STAINLESS STEEL FABRICATIONS
Built to your requirements or from a wide range of standards
Expertly made and beautifully finished Metal Craftsmen
Associated Metal Works (GLASGOW) LTD.
Telephone: BELL 2004/6
Telegrams: "STAINLESS, GLASGOW"
30 ST. ANDREW'S SQUARE, GLASGOW, C.1
LONDON: 7 GROSVENOR GARDENS, S.W.1. Phone: VICTORIA 1977/8
And at LIVERPOOL . BIRMINGHAM . NEWCASTLE . MANCHESTER . BELFAST . DUBLIN

EN-TOUT-CAS

By courtesy of Messrs. Atter Photographers, New York, U.S.A.
Final 800 Metres, PAN AMERICAN GAMES, CHICAGO, 1959 - "En-Tout-Cas" Track.

Hard Lawn Tennis Courts

Running Tracks

Football Grounds

Bowling Greens

Cricket Pitches

Swimming Pools

Squash Rackets Courts

THE EN-TOUT-CAS CO. LTD.

SYSTON, LEICESTER (Syston 3322-7). London Office: Harrods (4th Floor), Knightsbridge, S.W.1.

PARK YOUR CYCLES

THE **ODONI** WAY

(Regd. Trade Mark)

Types to suit all possible requirements. Single or Double sided, for indoor or outdoor use. Horizontal or Semi-Vertical

Write for full details to Sole Manufacturers and Patentees—

ALFRED A. ODONI & Co. Ltd.

Salisbury House, London Wall

LONDON, E.C.2. Tele { phone NATional 8525 grams Odoni Ave. London

Works: London, N.W.10)

A

RECENT ADDITION

TO

THE FAMOUS

PITMAN LIST

SURVEYING

By A. BANNISTER, M.C., B.Sc.(Hons.), etc., and E. S. RAYMOND, B.Sc.(Tech.) (Hons.), etc.

This book provides a direct approach to the basic problems involved in the various branches of Surveying. The principles underlying the surveyor's art are carefully established, and the student is introduced to modern instruments and techniques. An important book for all who are studying for the following examinations: H.N.C. and Diploma in Civil and Structural Engineering and in Building; Inst. of Civil Engineers, Part II; R.I.C.S. and similar professional examinations; Diploma in Technology and Degrees in Engineering. Engineering Degree Series. Price 45/- net.

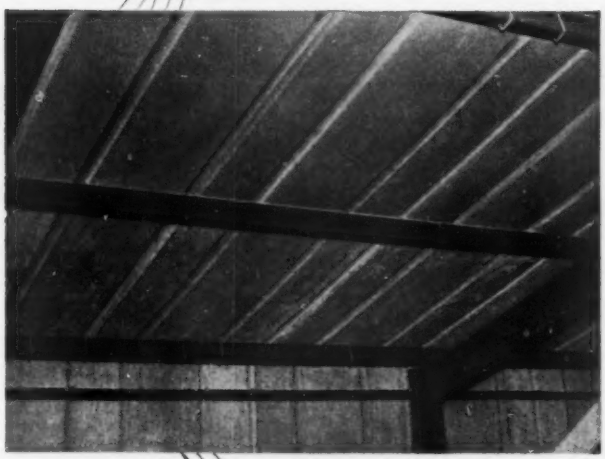
From all booksellers

PARKER STREET, KINGSWAY, LONDON, W.C.2

High resistance to thermal transmission...

Major Six

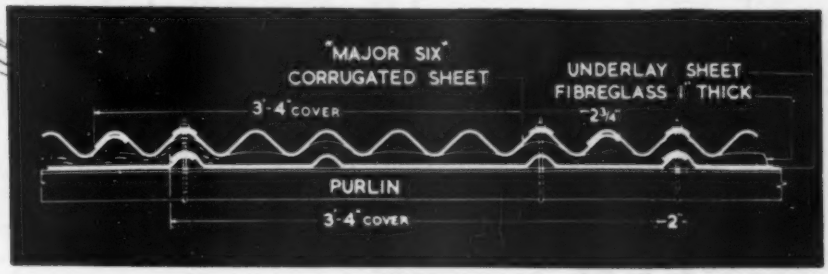
DOUBLE CLADDING INSULATION



Photograph above illustrates interior view of roof

"Major six" DOUBLE cladding insulation provides a high resistance to thermal transmission, contributing to higher equable interior temperature and consequent economical heating. Here is dependable roofing made for quick erection and permanent service.

It's the DOUBLE cladding that does it!—a rigid asbestos-cement underlining sheet laid directly to purlins as a soffit upon which the sheet of insulation is laid before putting the "Major six" sheet in position.



Easily fixed with hook bolt and washers "Major six" Double Cladding Insulation complies with the requirements of "Thermal Insulation Industrial Buildings" Act.

THE Atlas Asbestos CEMENT COMPANY LIMITED

ARTILLERY HOUSE · ARTILLERY ROW
LONDON SW1

Telephone: ABBey 3081. *Telegrams: "Atlastonco, Sowest"*

Works at: MELDRETH, Nr. Royston, Herts. *Also at:* GREENHITHE · STROOD · CAMBRIDGE · SHORNE · RYE (Sussex) · GT. YARMOUTH

Brush off the fear of FIRE!

With OXYLENE BORAM Fire Retardant Coating which raises inflammable surfaces to Class 1 "surface spread of flame" (B.S. 476-1953).

OXYLENE BORAM can be over-painted or applied to painted surfaces without loss of fire retarding qualities. It gives real fire protection and is approved by Local and Fire Authorities.

"Used in every Industry"

Write for particulars.

OXYLENE BORAM

Use TRANSPARENT for Veneers and Fabric RINSE for Textiles

FIRE RETARDANT COATING

THE TIMBER FIREPROOFING CO. LTD.,
13a Old Burlington Street, LONDON, W.1.
Tels: Regent 2489 (2 lines)
Works at: Market Bosworth, Nuneaton
Queen Elizabeth Avenue, Hillington, Glasgow, S.W.2.

DHB/2376

LATEX and PLASTIC FOAM CUSHIONING for LONG LENGTH SEATING

as used in

- HOTELS, BARS & CLUBS
- MUNICIPAL BUILDINGS
- RECEPTION AND WAITING ROOMS
- SCHOOLS & LECTURE HALLS
- WINDOW BAYS AND ALCOVES
- EXHIBITION STANDS

Dunlopillo cushions and backrests supplied to any specification, uncovered or covered and ready for installation on site.

Send for illustrated list

LATEX UPHOLSTERY LTD.
THE LEADING SPECIALISTS
41, LONSDALE ROAD, LONDON, W.11
Telephone: BAYSWATER 6262-5

The Concrete Dust Ogre

Keep him out of that Factory!

Few factories can afford concrete dust—it is far cheaper to treat the floors with Watco Concrete Hardener. Only one treatment is required, and this lasts as long as the floor, while the concrete becomes up to nine times tougher and highly resistant to most kinds of spillage. Watco is non-chemical, and has special advantages in the fields of electronics and nuclear energy.

Concrete floors need WATCO CONCRETE HARDENER

Full information from
WATCO (SALES) LTD (Dept. 5)
Floor Treatment Specialists
56 BUCKINGHAM GATE, LONDON, SW1 · VICtoria 0623

THIS IS THE – NEW

IBM INTERNATIONAL MODEL 28

Model 28 accepted by the Council of Industrial Design for inclusion in the Design Index

* **recently added to the large range of IBM International Electric Secondary Clocks— "the clocks with the clearest time indication"**
* **Time Indication can always be relied upon as the Clock is operated by the International Superelectric Master Clock Time System with its exclusive feature AUTOMATIC SUPERVISION that verifies the receipt of 60 minute impulses every hour by all time units on the circuit ALWAYS ensuring uniform and accurate time.**

Details of all IBM International Secondary Clocks will be sent free on request.

IBM UNITED KINGDOM LIMITED
International Time Recording Division
8 Berkeley Square, London, W.1. Tel.: Mayfair 2004

IBM TIME EQUIPMENT

ELECTRIC TYPEWRITERS *DATA PROCESSING* · *TIME RECORDING*

Egham, Hythe C.S. School

CLEMBRO

ARE WIZARDS WITH WINDOWS

'CLEMBRO' TRADE MARK GALVANISED METAL WINDOWS

The product of long experience and craftsmanship - specified by Architects for schools, hospitals, offices, houses and flats

Catalogue gladly sent on request

CLEMENT BROS., HASLEMERE, LTD

CLEMBRO WORKS · WEY HILL · HASLEMERE · SURREY *Tel.:* HASlemere 3393/4 *Grams:* Clembro, Haslemere

the new way to say

MOSAICS

Feltwood

FELTWOOD is real wood flooring—in ready-to-lay panels of ⅜in hardwood blocks indissolubly bonded to an underlay of damp-resisting felt. The mosaics cannot work loose. A heated building is not required, yet it withstands all forms of under-floor or ceiling heating.

FELTWOOD is easily laid, is available in many lovely hardwoods, has every single advantage of a traditional wood floor *plus* the damp-resistance and extra resilience the felt gives it—and it

COSTS BARELY MORE THAN SYNTHETIC FLOORING

MANUFACTURED BY
VIGERS

Write for leaflet ABF and sample panel of Feltwood—

VIGERS BROS. LTD., Ludgate Broadway, London, E.C.4. Tel: CITy 2111 and at Belfast, Exeter, Cardiff, Birmingham.

Rol-over-dor

the strongest and most easily operated garage door

PRICES FROM **£17** EX. WORKS
PROMPT DELIVERY

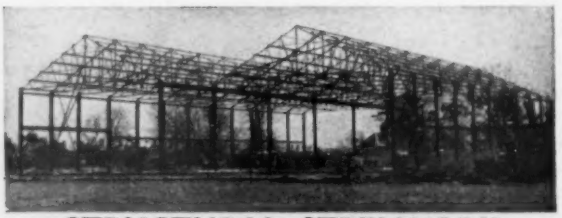
The Rol-over-dor is made stronger to last longer. 24 gauge hot galvanised interlocking steel slats form a continuous full width joint giving great strength and rigidity. The unique design operated by counter-balanced springs gives finger-tip control.
No weights! No pulleys!
The Rol-over-dor is supplied complete with all the necessary operating gear and with lock. Three sizes:- 7 ft. wide x 6 ft. 6 ins. high, 7 ft. x 7 ft. and 8 ft. x 7 ft.

For fully descriptive literature write or telephone:

Haskins
Brook Street
Basingstoke
Telephone 1070

made by Haskins

MAKERS OF THE WORLD FAMOUS ROLADOR SHUTTERS



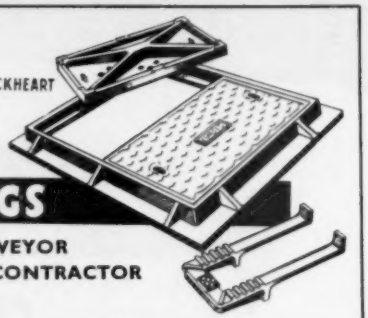
STRUCTURAL STEELWORK

for INDUSTRIAL PROJECTS
ROOF TRUSSES 15' 0" to 100' 0" SPAN

As specialists in roof truss design and fabrication we welcome inquiries for frameworks to suit standard or non-standard types of roof covering. Illustrated brochure available on application.

THE NORTHARC ORGANISATION LTD.
260, LANGHAM ROAD, TURNPIKE LANE, LONDON, N.15.
PHONE: BOWES PARK 3737

FINEST HALE BLACKHEART
MALLEABLE IRON
CASTINGS

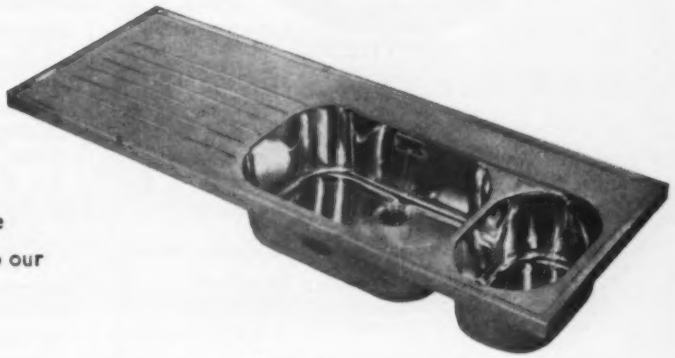


- FOR THE SURVEYOR
- ENGINEER & CONTRACTOR

HALE AND HALE · TIPTON · LTD., DUDLEY PORT, STAFFS
GRAMS: 'HALEFO TIPTON PHONES: TIPTON 1671-5

PLAND
REG. TRADE MARK

make a stainless steel sink for every kitchen



The illustration shows a RCS type unit. This type of unit has the advantage of a double bowl but with a comparatively small length, making it ideal for the smaller kitchen and a welcome newcomer to our extensive range of "Pland" sinks.

Send for illustrated leaflets and price lists to:

THE STAINLESS STEEL SINK CO. LTD.

Ring Road, Lower Wortley, Leeds, 12

63s net
by post 65s

from leading booksellers

8th edition

of the most useful reference work for architects. Completely revised and up-to-date . . . *now available*

Since it was first published in 1936 this book has firmly established itself as an indispensable work of reference for all who plan and design buildings. In concise form, specially devised for easy reference, it gives all the basic information necessary to the planning of a wide variety of buildings. Now in its 8th Edition, it has been completely re-written to conform to modern practice.

"The general feeling of the professional planner will be one of warm appreciation for technical guidance covering so wide a field and so attractively conveyed"—*The Surveyor.*

PLANNING

The Architect's Handbook

S. Rowland Pierce, F.R.I.B.A., DIST.T.P., Rome Scholar in Architecture; Patrick Cutbush, A.R.I.B.A., A.A.DIP., A.I.L.A., R.I.B.A., Alfred Bossom Gold Medallist; and Anthony Williams, A.R.I.B.A., A.A.DIP.

Published for "The ARCHITECT & BUILDING NEWS" by

Iliffe & Sons Ltd Dorset House Stamford Street London S.E.1

★ 19 different nosings : extruded from pure aluminium : plastic-filled in 9 colours (brown, green, lino brown, blue, maroon, black, white, silver, red) : also available fabric-filled : suitable for all types of stairway : can be supplied to fit almost any curve or bend.

To Small & Parkes Ltd. (Stairtreads Dept.), Manchester 9
PLEASE SEND ME YOUR ILLUSTRATED CATALOGUE GIVING DETAILS OF NOSINGS, COLOURS & DIMENSIONS OF DON STAIRTREADS — and names of depots and suppliers.

NAME .....

ADDRESS .....

.....

SMALL & PARKES LTD • Hendham Vale Works • Manchester 9
London: 251 Kingston Road, London, S.W.19 CHErrywood 3806/7
A.B.38

RENown 5474

MANDER & GERMAIN

LIMITED

Architectural Craftsmen

MARBLE · STONE · GRANITE

FLOORS · WALL LINING · CHIMNEY PIECES · ETC.

WILLOWBANK WHARF
PUTNEY BRIDGE · LONDON S.W.6

ARCHITECTURE AS A CAREER

A Practical Handbook for Students

By Maurice E. Taylor, M.T.P.I., A.R.I.B.A., F.I.L.A., F.R.I.A.S. F.S.A.SCOT., R.I.B.A. DIST. T.P., A.A. DIP. of Planning. A book in which the author, himself a successful practising architect, discusses the various methods of approach to the architectural profession. He explains clearly the regulations and documents concerning all the important R.I.B.A. examinations and offers advice which no student intending to take the examinations can afford to miss. He also gives essential information on the many valuable scholarships and prizes open to students, again accompanied by much sage counsel.

The book offers practical, comprehensive information on every aspect of the profession. It discusses, from the student's viewpoint, the many problems he is likely to encounter and sets out plainly, fully and sympathetically everything the intending architect will require to know during his student days.

10s. 6d. net *By post* 11*s.* 3*d.*

Published for "The Architect and Building News"
Obtainable from all booksellers or direct from:
DORSET HOUSE, STAMFORD STREET, LONDON, S.E.1

GF

step irons

GF Malleable Iron is strong and reliable. Specify **GF** Step Irons for your next job.

Standard types are:
3½lb. with 4⅝" tail for 4½" brickwork
4¾lb. with 9¼" tail for 9" brickwork

For precast concrete manholes:
2lb. with 1⅜" tail
2¼lb. with 2" tail
2⅝lb. with 3¼" tail

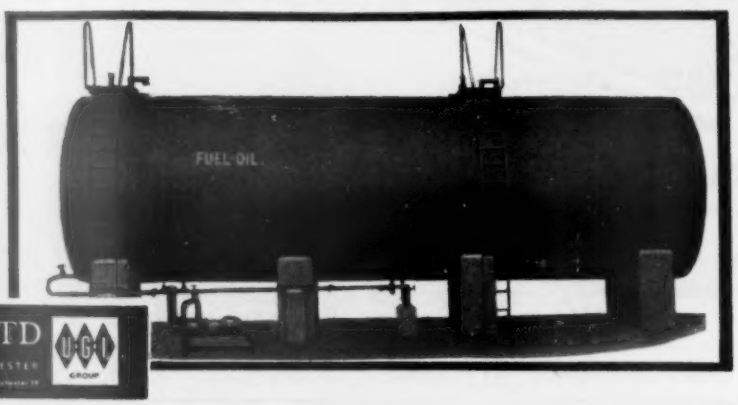
To BS 1247/1955

A member of the GEORGE FISCHER group (Switzerland)

Ask your usual supplier, or write to
BRITANNIA IRON & STEEL WORKS LIMITED
BEDFORD Telephone: Bedford 67261 ENGLAND

OIL STORAGE TANKS

Supplied any shape or size for the storage of Fuel Oils. The illustration shows a 10,000 gallons capacity Horizontal Tank complete with access ladders. If required, Contents Gauges and Steel Supporting Saddles can be fitted. Let D & M have your Oil Storage problems.



DOWSON & MASON LTD
ALMA WORKS LEVENSHULME MANCHESTER
UGI GROUP

DAMP PROOF COURSES

with REDUCED LABOUR COSTS

THE ONE-COAT WAY

NON-CRACKING · CONTINUOUS
WATERPROOF · BITUMINOUS

with SEMI-MASTIC 'E' (for dry surfaces)
SEMI-MASTIC '197' (for damp surfaces)

NO HEATING · READY FOR USE
EASY TO APPLY · BRUSH OR FLOAT

THE MANUFACTERERS OF:

RITO for Joints · RITOLASTIC Coatings for Protection · ROMANITE for damp walls

WRITE FOR DETAILS TO:

ANDREW MAXWELL DIVISION
(THE LIVERPOOL BORAX CO. LTD)
MAXWELL HOUSE · ST. PAULS SQUARE · LIVERPOOL. 3

Where cleanliness is part of service...

ONLIWON

TOILET TISSUE CABINET SYSTEM

Forte's maintain staff hygiene with Onliwon

The management of Forte's chain of restaurants insist on the highest standard of hygiene among their large kitchen staff and waitresses. To make *sure* they get it, they have installed the Onliwon Toilet Tissue Cabinet System in the toilets and washrooms of all Forte's branches. Onliwon is simple to operate and economical to run. It systematizes toilet facilities—cuts down wastage and overcomes pilfering. It pays dividends, too, in more comfortable working conditions and better staff relations. Specifications which include this personalised, money-saving equipment will earn for any architect the appreciation of managements and employees alike.

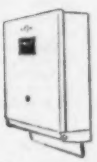
Locking steel cabinets with refill indicator, each holding 760 (approx.) sheets of finest toilet tissue 5" x 5¼"

Other well-known users of Onliwon include:—
Ford Motor Company Ltd., Dagenham · Aberthaw and Bristol Channel Portland Cement Co. Ltd · Aberthaw and Rhoose, Glam · British Sugar Corporation, London · British United Shoe Machinery Co. Ltd., Leicester Hackney Borough Council · Hoover (Washing Machines) Ltd., Merthyr Tydfil · Ransome and Marles Bearing Co. Ltd., Newark-on-Trent · The Metal Box Co. Ltd., London · Vauxhall Motors Ltd., Luton · The Steel Company of Wales and many others.

ONLIWON

PAPER TOWEL CABINET SYSTEM

teamed with toilet tissue for washroom hygiene



Locking steel cabinets in green or white, each holding 150 large, strong, absorbent paper towels.

BRONCO LTD., formerly British Patent Perforated Paper Co., Ltd., London, E.9. Tel. AMH 4777. **Manufacturers of Bronco toilet rolls and packets**

OFFICIAL ANNOUNCEMENTS

APPOINTMENTS • CONTRACTS • TENDERS

Rate: 25/- per inch and pro rata, minimum half inch. *Close for press 1st post Monday for following Wednesday Issue*

APPOINTMENTS

Borough of Ilford
Borough Engineer's Department
ARCHITECTURAL STAFF

(a) **Senior Assistant Architect,** Grade APT IV (£1,065/£1,220).
(b) **Assistant Architect,** Grade APT II/III (£765/£1,065).
(c) **Architectural Assistant,** Grade APT I (£610/£765).

The commencing salaries will be fixed within the scales, according to qualifications and experience. London Weighting payable in addition.

Candidates for appointment (a) must be Associate Members of the R.I.B.A. and have suitable experience in the development of Council housing, multi-storey flats, schools and other public buildings.

Candidates for appointment (b) should have passed the Intermediate Examination of the R.I.B.A. or equivalent.

Appointments permanent, superannuable, subject to National Conditions of Service and to satisfactory medical examination.

The Council is prepared to consider, if necessary, the provision of housing accommodation.

Forms of application obtainable from the Borough Engineer, Town Hall, Ilford, should be returned by January 18, 1960. [5966

Leeds Regional Hospital Board

APPLICATIONS are invited for the following appointments:

(a) **Senior Assistant Architect.** Salary scale: £1,050/£1,245 per annum.

(b) **Assistant Architect.** Salary scale: £730/£1,055 per annum. Commencing salary dependent on relevant practical experience, but the additional increments granted will not be more than the number of years by which the officer's age exceeds 23.

Applicants must be Associate Members of the R.I.B.A. These appointments offer excellent opportunities to Senior Architects to design and construct and to Assistant Architects to gain experience of a wide range of hospital buildings, including nurses' homes, houses, flats, kitchens, laundries and boiler houses. The Service is an expanding one and many new hospital projects are to be built in the immediate future.

(c) **Architectural Assistant.** Salary scale: £545/£765 per annum.

Applicants must have passed the Intermediate examination of the R.I.B.A. and have had a sound architectural training and some practical experience in a practising architect's office is essential.

All the above salary scales are at present under review.

Applications, giving age, experience and the names of two referees to the Secretary, Park Parade, Harrogate, by January 29, 1960. [5977

City of Sheffield
City Architect's Department

APPLICATIONS are invited for the undermentioned vacancies on the permanent staff of the City Architect, Mr. J. L. Womersley, F.R.I.B.A., Dist.T.P., M.T.P.I.

(a) **Senior Assistant Architect** (Education and General), Grade APT IV (£1,065/£1,220).
(b) **Assistant Architects,** Grade S.C. (£785/£1,070).
(c) **Architectural Assistants,** Grade APT II (£765/£880).

For work on an expanding and interesting programme comprising large and important civic buildings included in the rebuilding of large areas in the city centre: colleges, schools, libraries, art gallery, old people's and children's homes, bus garages, fire and police stations, health centres and clinics.

Commencing salaries within the above grades according to qualifications and experience.

Applications stating age, post applied for, present and past appointments, and full particulars of qualifications and experience, accompanied by the names and addresses of two referees, should be sent to the undersigned by Monday, January 18, 1960.

JOHN HEYS,
Town Clerk.

Town Hall,
Sheffield, 1.
December 22, 1959. [5981

APPOINTMENTS (cont)

British Railways

APPLICATIONS are invited for the post of Assistant Architect in the office of the Architect, Eastern Region, British Railways at King's Cross Station. The office is engaged on a wide range of interesting buildings, and gives responsibility for design, administration and site supervision to those of ability. Applicants should be qualified with some years' practical experience. Starting salary £833 p.a. Modern working conditions, five-day week and substantial rail travel concessions. Apply in writing to the Chief Civil Engineer, British Railways, Eastern Region, King's Cross Station, London, N.1. [5962

Somerset County Council
Architect's Department

APPLICATIONS are invited for the following appointments on the established staff, viz:

(a) **Senior Assistant Architects,** APT Grade IV (£1,065/£1,220).

Applicants for posts in this grade must be Associate Members of the Royal Institute of British Architects with a good standard of design ability and a sound knowledge of modern methods of construction and be capable of handling projects from sketch plans to completion.

(b) **Assistant Architects,** Special Grade (£785/£1,070).

Applicants must have passed Parts I and II of the R.I.B.A. Final or Special examination, or the equivalent at one of the recognized schools of architecture. Commencing salary will be within the grade, dependent upon the candidate's qualifications and experience.

(c) **Architectural Assistants,** APT Grade I (£610/£765).

Applicants must have passed the Intermediate examination of the Royal Institute of British Architects.

(d) **Junior Quantity Surveyor,** APT I (£610/£765).

Applicants must have passed the Intermediate examination of the Royal Institution of Chartered Surveyors and have had several years' experience in an approved office.

All appointments are superannuable and subject to the usual conditions of Local Government Service. Applications, accompanied by the names of two persons to whom reference can be made, should reach the undersigned not later than Friday, January 15, 1960.

R. O. HARRIS, F.R.I.B.A.,
County Architect.

The Crescent,
Taunton.
December 29, 1959. [5986

Air Ministry, Works Design Branch

REQUIRES in London and Provinces Architectural Assistants with adequate training and drawing office experience. O.N.C. (Building) an advantage. Work includes site layouts, sketch plans, working drawings and details for variety of technical and domestic buildings in permanent and semi-permanent construction. Financial assistance and time off given for recognized courses of study. Promotion and pension prospects. Five-day week with 18 working days leave per year initially. Overseas tours for which special allowances granted. Salary in London ranges from £680 (age 25) to £900 p.a. for men; from £673 to £868 p.a. for women; somewhat lower in Provinces. Commencing salary dependent on age, qualifications and experience. Applicants, who must be natural born British subjects, should write to Air Ministry, W.G.c, Lacon House, Theobalds Road, London, W.C.1, or to any Employment Exchange (quoting Order No. King's Cross 3744, giving age, details of training, qualifications, full particulars of former posts held and copies of any testimonials. Candidates selected will normally be interviewed in London and certain expenses reimbursed. [0889

Beeston and Stapleford Urban District Council
ARCHITECTURAL ASSISTANT

APPLICATIONS are invited for the above appointment, in Grade II (£765/£880) or Special Grade (£785/£1,070), the grade and commencing salary to be according to applicant's qualifications and experience.

Applications, accompanied by the names and addresses of two referees, should be forwarded to the Housing Architect, Town Hall, Beeston, Nottingham, not later than January 14, 1960.

H. D. JEFFRIES,
Clerk of the Council. [5988

APPOINTMENTS (cont)

City Architect's Office, Manchester

APPLICATION invited for appointments on the permanent staff of (A) Assistant Architect/Architectural Assistant. Salary: Special Scale £785/£1,070 per annum, commencing salary will be fixed according to qualifications and experience and (B) Architectural Assistant. Salary: APT I/II £610/£880 per annum. Five-day week. Removal expenses allowed. Housing accommodation for a limited period may be provided for the successful candidate for the senior post. Forms of application from City Architect, P.O. Box 488, Town Hall.

Returnable by January 20, 1960. [5968

London County Council
Brixton School of Building

REQUIRED as soon as possible, Lecturer in Building: graduate of British university or Associate of Institute of Builders or with comparable qualification; should have had good professional or industrial experience preferably on administrative side of a contractor's organization. Teaching experience an advantage.

Salary scale: £1,370 x £35—£1,550, plus London Allowance £38 or £51.

Application forms (foolscap s.a.e.) from Secretary at School, Farndale Road, S.W. 4. (2754) [5969

New Zealand Ministry of Works Engineering Staff

THE New Zealand Ministry of Works invites applications for the following vacancies on the permanent staff. Positions, qualifications desired and salaries offered are as follows:

Vacancy No. 3. **Mechanical or Electrical Engineers.**

Corporate Membership of the Institutions of Mechanical or Electrical Engineers, London, together with sufficient appropriate experience. Commencing salaries up to £1,525 p.a.

Vacancy No. 4. **Building Services Engineers.**

Corporate Membership of the Institution of Heating and Ventilating Engineers, London. Commencing salaries up to £1,450.

Vacancy No. 5. **Assistant Mechanical or Electrical Engineers.**

A university degree in Mechanical Engineering or Graduate Membership of the Institutions of Mechanical or Electrical Engineers, London, together with at least five years' experience since commencement of pupilage. Commencing salaries £870 up to £1,060 p.a.

Vacancy No. 6. **Assistant Building Services Engineers.**

Graduate Membership of the Institution of Heating and Ventilating Engineers, London, with at least five years' experience since commencement of pupilage. Commencing salaries £870 to £1,060 p.a.

Experience is necessary in the design and installation of services or equipment for one or more of the following: heating and ventilating, air conditioning, hot and cold water or sewerage services, laundries, kitchens, boiler houses, lifts and other mechanical services in offices, schools, hospitals, hotels, telephone exchanges, printing works, defence establishments, etc. All appointees will be required to undertake work of this nature.

Applicants must be resident in the United Kingdom or Eire and have fulfilled National Service obligations.

Inquiries, mentioning this publication and stating the Vacancy Number and the position sought, should be addressed to the High Commissioner for New Zealand, 415 Strand, London, W.C.2. Full details of duties, experience required, general information on the conditions of employment in the New Zealand Public Service and application forms will then be supplied. [5971

Lanark County Council
SENIOR ASSISTANT ENGINEER

REQUIRED for County Housing Architect and Engineer's Department, Hamilton. Salary scale: £1,145/£1,310. Must be fully qualified and have experience in the preparation of surveys, design, and control of road construction work for new housing development and redevelopment.

Superannuation. Medical examination. No canvassing.

Applications, stating age, qualifications and experience, together with names and addresses of two referees, to County Clerk, P.O. Box 1, Glasgow, within 14 days of date of advertisement. [5974

MISCELLANEOUS SECTION

RATE: 1/9d per line, minimum 3/6d, average line 6 words. Each para charged separately. Advertisements for Situations Wanted are accepted at the specially reduced rate of 6d. per line, minimum 1/6d.

BOX NOS. add 2 words plus 1/- for registration and forwarding replies which should be addressed c/o "The Architect & Building News," Dorset House, Stamford Street, London, S.E.1.

SEMI-DISPLAY Advertisements with centralized lines are charged at 20/- per inch. and pro rata, minimum half inch.

PRESS DAY. Monday. Remittances payable to Messrs. Iliffe & Sons Ltd., Dorset House, Stamford Street, London, S.E.1.

No responsibility accepted for errors

APPOINTMENTS (cont)

Lanark County Council

APPLICATIONS are invited from fully qualified Architects for appointment to the following posts in the County Housing Architect's Department, Hamilton:

(a) **Senior Architect** to act as group leader. Salary scale: £1,310/£1,425.

(b) **Senior Assistant Architects.** Salary scale: £1,145/£1,310.

(c) **Assistant Architects.** J.I.C. Salary scale: £795/£1,075.

(d) **Architectural Assistants.** Salary scale according to qualifications and/or experience.

Applicants for posts (a), (b) and (c) must be fully qualified A.R.I.B.A. and have experience in preparation of comprehensive layouts for areas of new development and redevelopment: design and construction of multi-storey flats and maisonnettes, shops and other ancillary buildings.

Applicants for post (d) should be A.R.I.B.A. Intermediate or have had good architectural experience.

Superannuation, medical examination, no canvassing.

Applications, stating age, qualifications and experience, together with names and addresses of two referees, to County Clerk, P.O. Box 1, Glasgow, within 14 days of date of advertisement. [5973

Argyll County Council

County Architect's Department

APPLICATIONS are invited for the following appointments:

(a) **Assistant Architect.** Salary: £1,040/£1,120 per annum.

(b) **Architectural Assistant.** Salary: £735/£865 per annum.

For post (a) applicants must be qualified architects who have had experience in the design and construction of modern school buildings and housing.

For post (b) applicants must have had a general architectural training, be capable of surveying, levelling, preparing detailed drawings and specifications and have had experience particularly in connection with housing and schools.

The posts are superannuable.

Housing accommodation will be made available if required.

Applications, stating post applied for and giving age, experience and qualifications, along with the names of two referees, should be lodged with the County Architect, County Offices, Dunoon, by January 9, 1960.

A. D. JACKSON,
County Clerk.
[5976

Sheffield Regional Hospital Board
ASSISTANT QUANTITY SURVEYOR

APPLICATIONS are invited for the above appointment on the Board headquarters' staff. Applicants should hold Corporate Membership of the Royal Institution of Chartered Surveyors. Salary scale £730/£1,055 per annum (at present under review). Commencing salary dependent upon age and experience. The appointment is subject to National Health Service (Superannuation) Regulations and to one month's notice on either side. Applications and the names and addresses of three referees should be forwarded to the Secretary to the Board, Fulwood House, Old Fulwood Road, Sheffield, 10, not later than January 20, 1960. [5990

County Borough of Grimsby

Borough Surveyor and Architect's Department

ARCHITECTURAL ASSISTANTS

APPLICATIONS are invited for the following appointments on the permanent staff of the department:

(a) **Senior Architectural Assistant.** Grade APT IV. Salary £1,065 rising to £1,220 per annum.

(b) **General Architectural Assistant.** Special Grade. Salary £785 rising to £1,070 per annum.

The appointments will be subject to the Conditions of Service of the National Joint Council, terminable by one month's notice on either side, and to the provisions of the Local Government Superannuation Acts. The successful candidate will be required to pass a medical examination.

Applications, stating age, qualifications, present and past appointments, and details of experience, together with the names and addresses of two referees, must be suitably endorsed and delivered to the undersigned not later than first post on Monday, January 25, 1960.

J. V. OLDFIELD, L.R.I.B.A.,
Borough Surveyor and Architect.

Municipal Offices,
Grimsby.
January, 1960. [5984

APPOINTMENTS (cont)

Borough of Swindon

Borough Architect's Department

APPLICATIONS are invited for the undermentioned posts.

Applicants should have the qualification shown, or an equivalent qualification.

The department is engaged in a large and varied development programme, including housing schemes, neighbourhood shopping centres, civic works and industrial buildings.

Housing accommodation may be offered.

(a) **Assistant Architect,** APT Special Scale (£785/£1,070). Final R.I.B.A.

(b) **Junior Assistant Architect,** APT II (£765/£880). Intermediate R.I.B.A.

(c) **Assistant Quantity Surveyor,** APT Special Scale (£785/£1,070). Final R.I.C.S.

(d) **Junior Assistant Quantity Surveyor,** APT II (£765/£880). Intermediate R.I.C.S.

Applications, on forms to be obtained from the Town Clerk, Civic Offices, Swindon, should be returned by January 20, 1960. [5987

British Railways

APPLICATIONS are invited for the post of Architectural Assistant in the office of the Architect, Eastern Region, British Railways, at King's Cross Station.

Applicants should have previous experience in an architect's office and should be taking a recognized course of study with a view to obtaining architectural qualifications. The work of the office provides opportunities to extend experience in design and construction of a variety of interesting buildings.

Modern working conditions, five-day week, rail travel concessions. Salary in accordance with age, qualifications and experience.

Apply in writing to the Architect, Chief Civil Engineer's Department, British Railways, King's Cross Station, London, N.1. [5979

County Borough of Great Yarmouth

Schools Architect's Department

APPLICATIONS are invited from Associate Members of the R.I.B.A. for a Senior Assistant Architect within APT IV (£1,065/£1,220).

Candidates must have a thorough knowledge of school design, construction and contract administration with at least five years' experience.

Housing accommodation will be available to the successful candidate if married. Assistance with removal expenses may be made in suitable cases.

Full details of present and past appointments, age, qualifications and experience, together with the names of two referees should reach the Schools Architect, 22 Euston Road, Great Yarmouth, by January 22, 1960.

D. G. FARROW,
Chief Education Officer.

22 Euston Road,
Great Yarmouth. [5989

TENDERS

Bromsgrove Urban District Council
Charford Estate No. 16
ERECTION OF 13 BUNGALOWS

THE Council invite Tenders for the erection of No. 13 Bungalows on Charford Estate No. 16 together with drains, paths, retaining walls and other ancillary works on a Fixed Price basis.

Bills of Quantities and Form of Tender will be sent to builders and contractors making a written application to the Engineer and Surveyor, Council House, Bromsgrove, not later than Wednesday, January 27, 1960. The application should be accompanied by a deposit of £3 3s which sum will be returned upon the receipt of a bona fide tender, together with all the documents.

Tenders in plain sealed envelopes endorsed "Charford Estate No. 16," are to be delivered to the undersigned not later than Saturday, February 27, 1960.

Plans may be inspected at the offices of the Engineer and Surveyor, Council House, Bromsgrove, or the Quantity Surveyors, Messrs. Crump & Aplin, National Provincial Bank Chambers, High Street, Bromsgrove, during the usual office hours.

The Council do not bind themselves to accept the lowest or any tender and any acceptance is subject to the approval of the Ministry of Housing and Local Government.

F. A. JESSOP,
Clerk to the Council.

Council House,
Bromsgrove.
December 31, 1959. [5996

ARCHITECTURAL APPOINTMENTS VACANT

Rate: 1/9 per line, minimum 3/6, average line six words.

ARCHITECTURAL ASSISTANTS of Final and Inter-standard required for work on industrial buildings. Excellent opportunities in an expanding London office. Apply stating age, experience and salary range, to the Chief Architect, Nuclear Civil Constructors, 52-55 Carnaby Street, London, W.1. [0820

ARCHITECTURAL ASSISTANT, London, Final standard. Industrial and commercial. Progressive and interesting. Salary according to experience and ability. Box 3667. [0079

ARCHITECTURAL ASSISTANT, Intermediate standard. Busy London office. Good prospects. Box 3668. [0080

ARCHITECTURAL ASSISTANT at Final standard required by Buckinghamshire office. Interesting and varied work with scope for initiative and responsibility. State age, experience and salary required to Box 5143. [0136

ARCHITECTURAL ASSISTANT required, with at least two years' office experience. Apply in writing to Thomas Mitchell & Partners, 20 Bedford Square, London, W.C.1. [0196

ARCHITECTURAL ASSISTANTS, Senior and Junior, required by firm in High Wycombe for commercial and industrial schemes. Scope for responsibility and experience. Five-day week. Write Box 5793. [0999

ARCHITECTURAL ASSISTANTS, Intermediate or above, required for interesting U.K. and Tropical work by London firm moving to new offices, pleasant surroundings, Wimbledon. No town travelling; five-day week. Write or telephone J. E. K. Harrison, 19 Broadstone Place, Baker Street, W.1. WELbeck 0694. [5982

ARCHITECTURAL ASSISTANTS

LOUIS DE SOISSONS, Peacock, Hodges, Robertson and Fraser require experienced Assistants for their Plymouth and Exeter offices. Applicants for the Plymouth post should be accustomed to supervising substantial contracts. Full details of past experience, age and salary, should be sent to 12 Baring Crescent, Exeter, as soon as possible. [5992

ARCHITECTURAL ASSISTANT required, up to R.I.B.A. Intermediate Standard, for varied and interesting work in small office.

Apply giving full details to T. I. Frith, Newcastle Chambers, 45 Carlton Road, Worksop, Notts. [5972

ASSISTANT required, Intermediate/Final standard with minimum two years' office experience. Good salary for right man. Five-day week. Luncheon vouchers.

Douglas & J. D. Wood, 1 Old Burlington Street, W.1. REG 6469. [5997

ASSISTANTS required immediately. Intermediate and Final standard. Interesting positions giving plenty of scope for responsibility and contract supervision, in West End office. Tel.: MAYfair 3111 or Box 5861. [0222

ASSISTANT urgently required, Intermediate to Final standard. Interesting and varied work with opportunity for site supervision. Salary from £600 plus L.V. G. Gordon Stanham, Adamson, Gray & Partners, 9/10 Fenchurch Street, London, E.C.3. MANsion House 1010 and 5274. [5983

ASSISTANT ARCHITECT required by Poplar Borough Council. Salary £1,100 per annum (inclusive of London Weighting). Applicants should have had experience in design and construction of multi-storey flats and houses and public buildings. Application forms from Borough Engineer and Surveyor, Poplar Town Hall, Bow Road, E.3. Closing date January 25, 1960. [5978

COVELL & MATTHEWS
require
capable and enthusiastic
Senior and Junior Assistants
to work on large central area redevelopment projects
Salary according to experience
Five-day week
Ring REGent 2291 [5951

Classified advertisements continued overleaf

ARCHITECTURAL APPOINTMENTS VACANT (cont)

CHARLES PIKE & PARTNERS require Assistants for interesting schemes. Training colleges, technical colleges, schools, hostels. Salary according to experience. £700 to £1,050. Write 14 Lincoln's Inn Fields, W.C.2, or phone Holborn 3532 for appointment. [5917

ELIE MAYORCAS requires senior assistants with minimum of three years' office experience in this country. Write, giving particulars of architectural education and experience, and salary required, to: 13 David Mews, Baker Street, W.1. [5957

INTERMEDIATE standard Architectural Assistant required immediately for work on exhibition and ancillary buildings. Write giving details of age, training and experience, if any, to the Staff Architect, Olympia Limited, Kensington, London, W.14. [0640

SENIOR ARCHITECTURAL ASSISTANTS, and Juniors up to about Intermediate standard, required for varied industrial and commercial work in West End office. Scope for initiative and advancement. Salary from £500 to £1,000, according to age and experience. Five-day week. Write giving full details to Box 6379. [0888

S.E. LONDON ARCHITECT wants Assistant to work on schools, office buildings, houses, etc., good opportunity for advancement in practice which sets a high standard. Steer, FOO 3166. [5970

SENIOR ASSISTANT, A.R.I.B.A. or Final standard, required for London architects' office. Interesting and varied practice. Salary £900 to £1,000 according to experience. Five-day week. Telephone WHI 2552 or write Box 6735 "The Architect & Building News", for appointment. [0754

WILLIAAM J. COX (Sales) LTD. of London and Tring—the Acrylic Rooflight Manufacturers—have vacancy for young man, preferably with drawing office experience. Subject to suitability, he will be offered a permanent and responsible position connected with sales and development of rooflights. Starting salary in accordance with experience, but not less than £700 p.a. Write to Managing Director at 559 Holloway Road, N.19. [5995

YORKE, ROSENBERG & MARDALL require Section Leaders for work on universities, schools, hospitals and technical colleges; starting salaries from £1,200 p.a., three to four years' experience desirable. Applicants please state age, training and experience to Y.R.&M., 2 Hyde Park Place, W.2, or ring AMB 4521. [5993

YORKE, ROSENBERG & MARDALL require Assistant Architects; starting salaries from £750 p.a. Applicants please state age, training and experience to Y.R.&M., 2 Hyde Park Place, W.2, or ring AMB 4521. [5994

SITUATIONS VACANT

PETER EDNIE & PARTNERS of 4 Gray's Inn Square, W.C.1., require experienced unqualified Assistants for permanent staff. Pension scheme operating. [5985

SITUATIONS WANTED

Advertisements under this heading only are accepted at the specially reduced rate of 6d per line, minimum 1/6.

A.R.I.C.S. (Building), age 30, Senior Assistant, experienced estate development, housing, repairs, structures, quantities, design and site supervision, seeks position with Surveyor/Architect. Car available. Southern Counties preferred. Box 6685. [5991

WORK WANTED

ENQUIRIES invited for manufacture of builders' engineering items—steel frames, trusses, steel doors, etc., particularly in specialist work. Keen prices and quick delivery. Burley's, Weybridge, Surrey. Byfleet 4111. [5650

EXCAVATION sub-contracts, site development, overburden removal, clay getting, earth dam construction, etc. Technical staff available to analyse, programme and price complex projects. Particular attention given to finish and compaction. D.9, D.8, TD.18 and TD.14 scrapers, excavators, loading shovels and lorries available with competent and imaginative supervision for execution of work. Also interested in overseas projects calling for not exceeding 10,000yd per week output. Dick Hampton, Blacknest, Alton, Hants. Tel.: Bentley 2241. [0334

G. BARTER & CO., Industrial Decorative Spray and Brush Painters (labour only on contract). We supply equipment, 1a Whitton Way, Hounslow, Middlesex. HOUnslow 9615, SOUthall 3815. [0083

FOR SALE

PRINTING MACHINE, Antiquarian Rotary type; mercury lamps; also developing machine, spare lamps, etc. Offers to Nalder Bros. & Thompson Ltd., Dalston Lane, E.8. CLI 2365. [5980

ARCHITECTURAL CARVINGS

CARVINGS, architectural (composition) for built-in furniture, wall panelling, etc. Variety of 2,000 different types of varying periods. On view at showroom. Michael Shavelson, 105/107 Brick Lane, E.1. Regret no catalogues. Telephone: BIS 0225. [5793

PRIVATE DRIVES AND ROADS

PRIVATE Drives, Forecourts, Estate Roads, etc., resurfaced or reconstructed by Specialists. Tarmacdam or Tarspraying. Estimates Free. Stanley Lucas (Slough) Ltd., Alexandra Road, Slough 21279. [0136

MISCELLANEOUS

ARCHITECTS, surveyors, demolishers, etc., we are buyers of redundant and surplus refrigeration equipment, all kinds. We dismantle and collect. Best prices given. Write Box 5516. [5870

BOOKS

MATERIAL HANDLING IN WORKS STORES: The Fork-Lift Truck and Pallet System. Second edition. By L. J. Hoefkens. Shows how the use of fork-lift trucks and pallets in industrial stores can increase production, utilize floor space more effectively, help control of movement and reduce costs. Includes a description of a system actually operated in a modern factory. 18s net, from all booksellers. By post 19s 0d from The Publishing Department, Dorset House, Stamford Street, London, S.E.1.

PRODUCTION ENGINEERING: Practical Methods of Production Planning and Control. By J. S. Murphy, A.I.I.A. This special book deals with factory organization, each separate item or function being discussed in the order in which it arises in practice. The book provides experienced production engineers with an opportunity to compare different methods. Price 12s 6d net, from all booksellers. By post 13s 5d from The Publishing Department, Dorset House, Stamford Street, London, S.E.1.

INDEX TO ADVERTISERS

Official Notices, Tenders, Auctions, Legal and Miscellaneous Appointments on pages 54, 55 and 56

Allied Guilds 44
Associated Metal Works (Glasgow) Ltd. 45
Atlas Asbestos Cement Co. Ltd. 47

Baker, A. W. 45
Batley, Ernest, Ltd. 40
Board Processors Ltd. 38
Bolton Gate Co. Ltd. 18/19
Brierley, S. J. (Wilts) Ltd. 43
Britannia Iron & Steel Works Ltd. 52
British Coking Industry Assoc., The 20
Bronco Ltd. 53

Cellon Ltd. 12
Celotex Ltd. 34
Clement Bros. (Haslemere) Ltd. 49
Crane Ltd. 23
Crapper, Thomas, & Co. Ltd. .. 43

Danaura Ltd. 45
Denison French Ltd. 40
Dowson & Mason Ltd. 52
Durasteel Ltd. 45

Econa Modern Products Ltd. .. IFC
En-Tout-Cas Co. Ltd. 46

Flamingo Foam Ltd. ..... OBC
Fleming, E. & J. 44

General Electric Co. Ltd. 14/15 & 31
Glazed & Floor Tile Manufacturers' Association 3

Hale & Hale Ltd. 50
Haskins 50
Henderson, P. C., Ltd. 32
Hille, S., & Co. Ltd. 39
Hope, Henry, & Sons Ltd. 33
Hotchkiss Engineers Ltd. 43
Hotel & Catering Exhibition 8

I.B.M. United Kingdom Ltd. .. 49
Ideal Boilers & Radiators Ltd. .. 17
Iliffe & Sons Ltd. 51, 52
Imperial Aluminium Co. Ltd. .. 10/11
Industrial Engineering Ltd. 4

Johnson, S. C., & Son Ltd. 27

Kay & Co. (Engineers) Ltd. 35
Kerner-Greenwood & Co. Ltd. 45

Latex Upholstery Ltd. 48

Mander & Germain Ltd. 52
Maxwell, Andrew 53
Mullen & Lumsden 43

National Coal Board 24/25
Northarc Organisation, The 50

Odoni, A. A., & Co. Ltd. 46

Pharaoh's Plywood Co. Ltd. 42
Pilkington Bros. Ltd. 1
Pitch Fibre Pipe Association of Great Britain 37
Pitman, Sir Isaac, & Son Ltd. .. 46
Precast Utilities (London) Ltd. 16
Pyrotenax Ltd. ..... IBC

Quicktho Engineering Ltd. 2

Richardson & Starling Ltd. 43
Rippers Ltd. 22

Sadd, John, & Sons Ltd. 30
Sealocrete Products Ltd. 9
Secomastic Ltd. 28
Shanks & Co. Ltd. 26
Sieber, J., Equipment Co. Ltd. .. 43
Siegwart Floor Co. Ltd. 21
Small & Parkes Ltd. 52
Stainless Steel Sink Co. Ltd., The 51
Steven, A. & P., Ltd. 43

Taylor, J. (Syston), Ltd. 44
Thorn, J., & Sons Ltd. 29
Timber Fireproofing Co. Ltd., The 48
Tomo Trading Co. Ltd. 5
Tunnel Portland Cement Co. Ltd., The 41

Ventor Terrazzo & Mosaic Co. Ltd. 45
Vigers Bros. Ltd. 50

Watco (Sales) Ltd. 48
Williams, John, & Sons (Cardiff) Ltd. 13
Williams & Williams Ltd. 6/7

Yale & Towne Manufacturing Co. 36

Printed in Great Britain for the publishers, Iliffe and Sons Ltd., Dorset House, London, S.E.1, by Gibbs and Bamforth Ltd., St. Albans, Hertfordshire.

FIRST FOLD HERE

FOLD HERE

THE ARCHITECT & BUILDING NEWS
READERS' INFORMATION SERVICE

Catalogues and further information relating to manufacturers' products mentioned in the editorial columns or advertised in this issue will be forwarded if you fill in the sheet overleaf, fold, and post this prepaid form.

Postage will be paid by Licensee

No postage Stamp necessary if posted in Great Britain or Northern Ireland

BUSINESS REPLY FOLDER
Licence No. SE 591

ILIFFE & SONS LTD.,
THE ARCHITECT & BUILDING NEWS
Readers' Information Service,
DORSET HOUSE,
STAMFORD STREET,
LONDON, S.E.1

FOLD HERE

HAVE YOU FILLED IN YOUR NAME AND ADDRESS ?

TUCK IN THIS END

THE ARCHITECT & BUILDING NEWS READERS' INFORMATION SERVICE

ADVERTISED PRODUCTS

Issue dated 6 January 1960

Below is an alphabetical list of advertisers in this issue. Please indicate those on which you would like to receive catalogues or further information by a circle round the page number.

Allied Guilds 44
Associated Metal Works (Glasgow) Ltd. 45
Atlas Asbestos Cement Co. Ltd. 47

Baker, A. W. 45
Batley, Ernest, Ltd. 40
Board Processors Ltd. 38
Bolton Gate Co. Ltd. 18/19
Brierley, S. J. (Wilts) Ltd. 43
Britannia Iron & Steel Works Ltd. 52
British Coking Industry Assoc., The 20
Bronco Ltd. 53

Cellon Ltd. 12
Celotex Ltd. 34
Clement Bros. (Haslemere) Ltd. 49
Crane Ltd. 23
Crapper, Thomas, & Co. Ltd. ... 43

Danaura Ltd. 45
Denison French Ltd. 40
Dowson & Mason Ltd. 52
Durasteel Ltd. 45

Econa Modern Products Ltd. .. IFC
En-Tout-Cas Co. Ltd. 46

Flamingo Foam Ltd. ..... OBC
Fleming, E. & J. 44

General Electric Co. Ltd. 14/15 & 31
Glazed & Floor Tile Manufacturers' Association 3

Hale & Hale Ltd. 50
Haskins 50
Henderson, P. C., Ltd. 32
Hille, S., & Co. Ltd. 39
Hope, Henry, & Sons Ltd. 33
Hotchkiss Engineers Ltd. 43
Hotel & Catering Exhibition 8

I.B.M. United Kingdom Ltd. ... 49
Ideal Boilers & Radiators Ltd. .. 17
Iliffe & Sons Ltd. 51, 52
Imperial Aluminium Co. Ltd. .. 10/11
Industrial Engineering Ltd. 4

Johnson, S. C., & Son Ltd. 27

Kay & Co. (Engineers) Ltd. 35
Kerner-Greenwood & Co. Ltd. 45

Latex Upholstery Ltd. 48

Mander & Germain Ltd. 52
Maxwell, Andrew 53
Mullen & Lumsden 43

National Coal Board 24/25
Northarc Organisation, The 50

Odoni, A. A., & Co. Ltd. 46

Pharaoh's Plywood Co. Ltd. 42
Pilkington Bros. Ltd. 1
Pitch Fibre Pipe Association of Great Britain 37
Pitman, Sir Isaac, & Son Ltd. .. 46
Precast Utilities (London) Ltd. 16
Pyrotenax Ltd. ..... IBC

Quicktho Engineering Ltd. 2

Richardson & Starling Ltd. 43
Rippers Ltd. 22

Sadd, John, & Sons Ltd. 30
Sealocrete Products Ltd. 9
Secomastic Ltd. 28
Shanks & Co. Ltd. 26
Sieber, J., Equipment Co. Ltd. .. 43
Siegwart Floor Co. Ltd. 21
Small & Parkes Ltd. 52
Stainless Steel Sink Co. Ltd., The 51
Steven, A. & P., Ltd. 43

Taylor, J. (Syston), Ltd. 44
Thorn, J., & Sons Ltd. 29
Timber Fireproofing Co. Ltd., The 48
Tomo Trading Co. Ltd. 5
Tunnel Portland Cement Co. Ltd., The 41

Ventor Terrazzo & Mosaic Co. Ltd. 45
Vigers Bros. Ltd. 50

Watco (Sales) Ltd. 48
Williams, John, & Sons (Cardiff) Ltd. 13
Williams & Williams Ltd. 6/7

Yale & Towne Manufacturing Co. 36

EDITORIAL REFERENCES

New Products when published in the editorial columns are alphabetically listed. Please mark those letters where you would like to receive further information and catalogues. For information on other editorial content enter your inquiry in the space provided.

NEW PRODUCTS

A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

Other Editorial content:

PLEASE WRITE IN BLOCK LETTERS

NAME _____

ADDRESS _____

_____

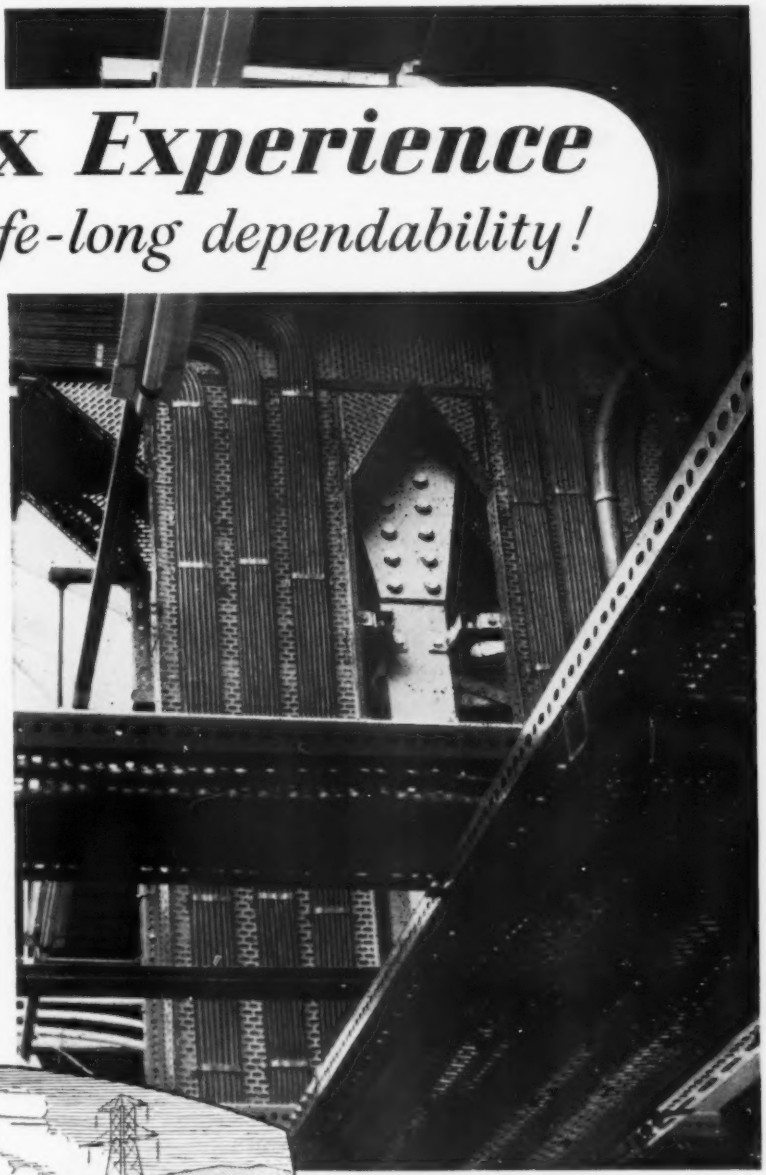
OCCUPATION _____

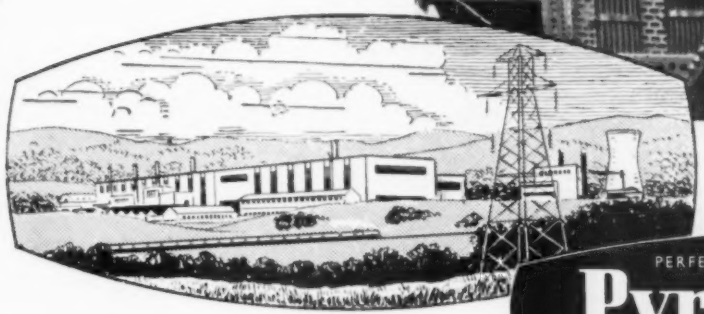
Pyrotenax *Experience*

ensures life-long dependability!

The unique advantages of 'Pyrotenax' derive from a sound basic idea—mineral insulation, copper covering. Revolutionary 20 years ago, 'Pyrotenax' Cable is today accepted practice where unfailing life-long dependability is demanded. Twenty years and a proving ground that embraces the whole world have produced many problems and found as many solutions. Little wonder that famous concerns the world over rely on the experience behind 'Pyrotenax' M.I.C.C. Cable.

Write for full details and "Technical Data A 118"





Photograph, by courtesy of The Steel Company of Wales, showing part of the 'Pyrotenax' installation at the Velindre Works. Electrical Contractors: F. H. Wheeler Ltd. (Cardiff) Consultants: McLellan & Partners Ltd.

PERFECTED BY EXPERIENCE

Pyrotenax

m.i. COPPER COVERED CABLE

non-fire causing—heat resisting—moisture-proof—non-ageing—rust-proof—safe against overload—resistant to mechanical maltreatment—resistant to noise transmission—

The use of the trade name 'Pyrotenax' is exclusive to the products of this Company and its associates.

PYROTENAX LIMITED

HEBBURN-ON-TYNE · **Telephone: Hebburn 83-2244/8**

there is no substitute for experience

LONDON: *Victoria 3745* · **BIRMINGHAM:** *Midland 1265* · **MANCHESTER:** *Deansgate 3346/7* · **LEEDS:** *Leeds 27826* · **GLASGOW:** *Central 2238* · **CARDIFF:** *Cardiff 23689*

GD118

THE ARCHITECT & BUILDING NEWS

6 January 1960

WHY IS FLAMINGO BEING RECOMMENDED FOR INSULATION OF FACTORY ROOFS...

Ministry of Transport, Sperry Gyroscope Co., Ltd., Architect: L. H. Humphrey, L.R.I.B.A. Contractor: William Sandfield Ltd

Because it's cheaper? Yes, economy is, of course, one reason, but even more important:

1. **Flamingo stays up for good.** No need for annoying, frequent replacements. Flamingo non-inflammable "Green Label" quality is **waterproof,** with a very high water vapour resistance factor.
2. **Amazing insulating value**—you can actually *feel* the warmth of Flamingo insulation boards.
3. **Modern** bright (electricity-saving) appearance.
4. **Fast and easy fixing.** No need to interrupt production while mounting Flamingo insulation. Boards can be painted in colour with emulsion paint before fixing.
5. **Light-weight.** No need for extra pillars or other supports. Even the oldest factory roof can carry a material consisting of 98% air.
6. **Lower noise level** due to Flamingo's sound-absorbing properties.

Price example: With the new Grecon T-system for fixing, an average factory roof can normally be insulated at 13/- per sq. yd., labour and all materials included. Fuel saving: 50 per cent. yearly return on the insulation investment is normal; in some instances factory owners have had their investment returned twice yearly.

Write for a sample and let us tell you about how to insulate and improve the appearance of factory roofs,

FLAMINGO FOAM LTD.

34, Victoria Street, London, S.W.1. Telephone: ABBey 1543